

THE AMERICAN FARMER,



SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

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WORK FOR FEBRUARY.

In commencing our monthly converse with our numerous patrons, we are not influenced by the vain hope that we shall be able to say anything new or original, but with the more rational one, that we may be able to remind some of them of a few things that might otherwise have escaped their recollections. If we shall succeed in this latter purpose, the height of our ambition will have been gratified, and our object attained.

Before we come to notice the labors of the farm, we would, however, be permitted to make a few passing remarks on the prospect of a foreign market for the surplus products of the grain grower. And in the first place, we would observe, that the intelligence subsequently received has but tended to confirm the opinions we had previously formed and expressed in our December number. All the reasons which then operated, serve but to strengthen our belief in the soundness of the opinions we then formed and gave voice to. Indeed every sentence of the Queen of England's speech to parliament—all the opinions of the British press, connected with the monetary affairs of the United Kingdom, go to show that the moneyed revulsion experienced, arose from the necessity which prevailed there, during the last year, of eking out so heavy a portion of their purchases of breadstuffs and provisions with *bullion*—that it was the necessity of sending their precious metals to us, to procure the necessities of life, that brought about that stringency in money matters that has led to all her commercial embarrassments, and brought ruin upon so many commercial houses of theretofore good standing. Had England been able to pay for the *thirty-three millions of extra food* imported by her, with the products of her manufactories, the operation would have been one of immense profit to her, because it would have been the reward of the *current industry* of her people; but when she had to draw so largely upon her *past earnings* to sustain their *current wants*, its effects were immediately felt, and as a con-

sequence, natural and inevitable, enterprise became enveloped in difficulty, and speculation paralyzed, for the simple reason that banks could no longer grant accommodations, because of the incessant drafts which had been made upon their *bullion*, the which, forming the basis of their paper issues, could exert a potential influence to do good no longer than it remained in *their vaults*, where alone it possessed the power of representative creation. Some have been short-sighted enough to ascribe to the rail-road enterprises of England, her monetary difficulties of the last year, but such an ascription is as absurd as fallacious, as every dollar thus occupied, tended to stimulate and bring into active life her industry, create labor, and give employment. And however unproductive any of these enterprises may have proved to the individual stockholders, as the money did not go out of the country, but on the contrary, was kept in the country, it could exert none other than a beneficial influence, because, instead of the vast amounts thus invested being confined to a few hands—being locked up in the coffers of capitalists—it became diffused, was circulated through every vein and artery, and thus became the common source of employment and reward to the industrial classes.

Though the failures in England have become less frequent, the pressure for money comparatively abated, the effects of the demands made last year upon her then *past earnings*, will continue to be felt for a year or so, and until the sum thus expended shall be replaced by future earnings; and hence it is, that her inability to be an extensive purchaser of foreign products will also continue so long as the cause which produced it may last. Fruitful as England is, large as are the products of her fields, she must, however, from the density of her population, ever continue a customer for a considerable portion of her breadstuffs, and so long as her duties shall remain as now, we may, to a certain extent, divide the supply with the grain producers of Europe, though from the superior contiguity of those bordering on

the Black sea, and the Baltic, and the cheapness of labor in those countries, they will, except in years like the past, always have the advantage over us—hence it is, that England heretofore has mostly drawn the deficiency of her supplies from those countries, and that our exportations of flour there, have been governed by the rates of Exchange. In taking a view of all the operating causes, with the desire to arrive at just conclusions, we have become impressed with the belief, that, although our exportations to England, of *Breadstuffs and Provisions* during 1848, will fall very far short in amount to those of 1847, still they will be greater than they had been for a long series of years prior to the latter year. The reason of this is obvious—the famine of 1847 cleared out all the accumulations of former years, so that, though the crop of grain in England of last year proved a productive one, the actual deficiency will be greater than in former years less productive, inasmuch as the demands of consumption will have little or no warehoused grain to fall back upon. The same cause which operated to clear out the depots of England, had a like effect in clearing out the barns in our own country—for much grain which had been held over a year or two, for better prices, found markets during the last year. The reports of all the Rail Roads and Canals, which are the carriers of the products, prove this, by the unmistakable fact, that their lines of transportations were increased more than a hundred per cent. It is plain then, from the premises suggested, that the consumption of 1848, will have to rely upon the productions of 1847, almost exclusively for supply, whether that consumption shall have relation to foreign or home demand, and such being the case, the inference is a legitimate one, that prices will so rule, as to yield a fair reward to the producers of breadstuffs and provisions during the current year.

Of the article of *Corn and Corn-meal*, we would remark, that if pains be taken to send none to the markets of *England, Ireland, and Scotland*, but what shall have been *kiln-dried*, during the present year, that its superior excellence as a cheap food for man, and a *fattener* for stock, will so commend it to favor, that it will establish permanent markets in those countries, and continue to find outlets there for a very considerable portion of our surplus.

Turning from *prospective demands, and prices*, let us see what may be done during this month

ON THE FARM.

Working Horses and Mules.—As these noble creatures are now severely taxed with the ordinary labors of the farm—and as they will be continued to be so taxed—they should receive all possible attention, kindness and care. They should be fed and watered at regular hours, three times a day, be curried or carded, and brushed or whiped down night and morning. And as it is desirable that they should enter upon their spring labors in fine condition, if

they are not in good plight now, they should have a moderate increase of grain food. Their stalls should be well bedded with straw, and regularly cleaned every morning. If their hair should appear dead, and their hides bound, they should have a quart of *buckwheat* meal, or a pint of *linseed* meal mixed in their feed thrice a week for a week or so, and should receive two or three mornings in succession, a handful of ashes and three or four ounces of salt, each—this latter may be either mixed up with their feed or placed in their troughs to be consumed by them between meals.

Working Oxen.—Let increased care be meted out to these faithful animals, not forgetting, that if hard labor should be required of them, that corn and cob meal is an admirable encourager of strength, fat, and a disposition to do their work kindly. Indeed, we might say, that he who expects them to do a full days work must never fail to give them daily allowances of both long and short feed, as no animal can meet such demands upon his strength unless he be well fed. The Ox though he can exist, and often is compelled to exist out of doors, nevertheless delights in, and thrives much better when allowed, a good warm bed to rest his weary limbs upon. He should also receive twice a week a handful of salt—or what is better, a handful of a mixture composed of equal parts of salt, lime and ashes.

Milch and In-Calf Cows.—Each of these should experience increased attention. Their lodgings should be in a dry warm shed, facing the south. Besides their usual allowance of hay or fodder, they should receive daily, each, a portion of roots or their equivalent in corn and cob meal made into slops in which cut straw should be mixed. If curried or rubbed down daily their comfort would be greatly increased and their appearance improved, while the same attention should be paid to salting them as is to the horses and other beasts of burthen. Once in every two weeks pour in the cup on the top of the head, just behind the horns, a teaspoonful of the spirits of turpentine, and thus prevent them from having the hollow horn. Currying their manes daily and good feed will prevent their becoming lousy. Should they however become so, wash the crown of their heads and tops of their necks with strong brine, then with a whisp of straw rub them dry, when you should oil them from the crown of the head down the back bone to the rump with fish oil. This, if repeated three or four days in succession, will kill all the lice. Another safe remedy is a decoction of the garden larkspur. The surest prevention is cleanliness and good feeding. Neither a cow nor an ox will ever get in that condition if well fed and curried daily.

Breeding Mares and Colts.—These should be provided with warm sheds, dry bedding and good food, short as well as long, and in every respect, except in quantity, receive similar treatment as the working horses.

Young Stock, of all kinds, must be provided with dry warm sheds and bedding, and have their appetites reasonably gratified. He that expects a young animal, who may be half-starved, to grow, elaborate flesh, muscle and fat, has faith enough to believe in the discovery of the philosopher's stone.

Swine, Breeding Sows, Pigs, and Store-Hogs.—These should be all provided with good pens in which they may sleep warm and dry, and should be fed and watered regularly; have charcoal or rotten wood at all times in their pens, and given a mixture of equal quantities of salt and ashes once a week, say a handful to each hog, and half that quantity for a young pig. Breeding in and in must not be indulged in beyond the second generation.

Sheep.—Presuming that you have provided yourself with proper sheds for these animals, we will admonish you that it is necessary to keep their beds dry—that you should daily give to each sheep three pounds of hay or its equivalent in other food—that they require to be watered every day, and to be allowed salt at all times—that you should twice a week put tar and salt into a trough free to their access, and throw them pine bows to browse upon at least once a week: that where wool is your chief object *beam* meal is the best short food you can give them, it being the most active agent in the secretion of wool known to the flock-masters.

Tobacco Beds.—It is hardly necessary to say anything to our intelligent growers of the great staple of our State, to remind them that this is the month in which their beds should be burnt and prepared, but we will so far trespass upon their notice as to recommend that they procure a dressing of *Guano* for their tobacco beds. This should be ploughed in at the rate of 400 lbs. to the acre, and the beds after being sowed and raked in, receive a broadcast dressing of plaster, which latter dressing should be repeated on the coming up of the plants. This latter dressing would be greatly increased in value as a preventive against the fly, if instead of being composed of plaster alone, it were comprised of 2 parts plaster, 1 part flour of sulphur, and 1 part soot, which should be strewn over the plants several mornings in succession early.

Barns, Stables, and other out-buildings.—Subject these to a scrutinizing examination, have all necessary repairs promptly made, and then white-wash each thoroughly.

Poultry Houses.—Give to these such a cleaning, nests and all, as will leave nothing filthy behind—then white-wash them inside and outside, taking care to infuse salt into the white-wash.

Poultry.—If you wish your hens to lay, provide, under cover, convenient to your hen house, a pile of sand, gravel, and one of ashes, for your fowls to dust in, and some old broken mortar, or lime for the hens to pick at. Mix with their food fresh meat of some kind, chopped fine, until the frost is out of the

ground, and you may rest assured that your hens will supply you with a goodly number of fresh eggs. When a hen cannot, owing to the frost, scratch and procure worms and other insects, you must supply her with a substitute, which can be found alike in fresh meat or fresh fish; when the latter may be used, it should always be boiled and the bones pickled out. Give a hen lime, ashes, sand, gravel and fresh meat, and she will lay nearly as well in winter as in spring, summer and autumn.

Roosters should be changed every two years to avoid the evil of breeding in and in, an evil which not only decreases fecundity, but impairs the vigor of the constitution.

Turkeys, Ducks and Chickens should at this season of the year be fed three times a day—their food should be alternated—Corn, oats, buckwheat and potatoes mashed with corn meal are all good—so also is turnips chopt fine—or cabbage, when mixed with meal.

Fencing and Fences.—If you have not already done so, go forthwith to the woods and get out all the stuff that you may require for fencing purposes. When cut down, haul it home, and employ your hands in wet weather in morticing the posts and shaping and pointing the rails, in order that you may be ready upon the earliest occasion to erect new or repair your old fences. Recollect that while rickety fences encourage stock to commit depredations, that such fences are taken as the sure evidences of a slovenly farmer; the world will be much addicted to draw unfavorable conclusions from outward appearances, and too uncharitable to make allowances for neglects of duty of the kind.

Gates.—If you have not done so already, have a good substantial gate hung on every field on your place.

Planting.—If you have not already got growing on your place *Locust* and *Chestnut* sufficient for all fencing purposes, sow seed enough of each and plant out a few acres in such trees—in twelve years you may cut them down and renew your field fences. Don't say "it will take too long"—as while you are asleep they will be growing—and plenty of fencing stuff adds much to the intrinsic value of a farm should one feel disposed to sell it.

Orchards.—If you have not these already growing on your farm, make arrangements during the present season to supply that deficiency; an estate in the country, without plenty of good fruit, lacks one of its greatest sources of comfort and profit, and the family of its owner must necessarily be debarred from the enjoyment of one of the most healthful luxuries which can be placed upon the table. So indispensable do we consider a good orchard to a well regulated farm, that we look upon it that the owner has not discharged his whole duty to his family until he has provided one.

Stiff Clays.—All grounds of this description intend-

ed for crops the ensuing spring will be the better of winter ploughing. This operation, however, should not be done while the ground is wet; as when ploughed in that condition it remains in a state of mortar during all the ensuing season; but if ploughed in a proper state, when neither too wet nor too dry, the happiest effects are sure to result through the meliorating influence of the frost, which never fails to break down the tenacity of the stiffest clays and to render them comparatively friable.

Tools and Implements—Wagons and Carts.—Make a thorough examination of everything of the kind on the farm, and have all necessary repairs made, in order that each may be fit to use when you may want them. By attention to this duty now, you may save yourself much trouble and mortification hereafter.

In looking over your tools and implements, if you find you have not enough to carry on your operations advantageously, lose no time in purchasing what you may be deficient in, and be sure to get them of the best quality, as we have always found such to be the cheapest in the long run.

Manure.—Attend to your manure pile—see that it is so arranged as that its quality will neither be impaired by unnecessary exposure to the sun, through evaporation, nor by the waste from drenching rains. This being attended to, take especial care to add to its volume by every possible means within your power. Without economy in the accumulation of manure, a judicious husbanding of it after it is accumulated, and a judicious application of it afterwards—the fertility of no farm can be maintained; but by sedulous and systematic attention in these particulars, the productive capacity of the soil may be kept up. Let no one say he has not time to attend to these things, as his interest and duty both indicate that time thus appropriated is the most profitable of all others.

Lime.—Let every farmer who may not have already limed his land, take early measures to do so, as any improvement of the soil, looking to *permanency*, must be based on lime.

Seeding Clover.—Be sure to sow one bushel of Clover seed on every five acres of land which you may have in wheat. If such land may not have been limed, or that mineral not present in it, be sure to give it a few bushels per acre, broadcast, at the time of sowing the clover seed—lime being essential to the successful growth of clover.

Oats.—The time to sow oats must be regulated by locality—it is a safe rule to sow so soon as the frost is out of the ground, and it can be well ploughed. Early sown oats always produce most—wherever they may be sown on poor ground they should have the benefit of a bushel or two of plaster per acre.

Guano.—The question having been repeatedly asked us, of late, whether Guano would be a good manure for corn? We seize the occasion to say in this place, yes. It is good for that crop or any other

er—that its constituent elements renders it an eligible manure for grain, roots, or grass. If we were about to use it on corn, we should apply 400 lbs. to the acre, sow it broadcast over the field as we ploughed, so as not to suffer loss by the escape of the ammonia. Indeed, from our knowledge of what it contains, *we would never use it without ploughing it under.* In lands in moderate tillth, in addition to the Guano, we would apply to the hill, a handful of a mixture composed of 1 part of plaster, 5 of ashes and 20 of some rich mould, or well rotted dung, to give an early start to the growth of the plants, before they could derive benefit from the extension of their roots into the strata of earth where the Guano was buried.

We have been asked if Guano would prove serviceable on land which has been recently limed, and we answer, yes, if the guano is ploughed in. The only influence which lime could exert would be to drive off more rapidly the ammonia already formed, and to hasten the formation and elimination of that which might be in the state of being formed; but these effects can be prevented by the application of a bushel of plaster per acre, which would seize upon the ammonia, through its sulphuric acid, form a sulphate of ammonia, which would be slowly soluble, and thus would the value of the ammonia, the nutrient principle in the guano, be reserved to be acted upon by the roots and spongiolets of the plants, through their voltaic power, as their necessities might require such food.

Of top-dressings with Guano, unless mixed with one-fourth its weight of plaster, we have no conceit, because, otherwise its most active principle, ammonia, would fly off and be lost.

With these remarks we ask permission to close our month's talk, and to tender our best respects to our numerous patrons.

RANDOM THOUGHTS

Upon the December No. of the American Farmer.

BY A FATUENT PLANTER.

"What a delightful mental repast you offer me my old friend 'Farmer,' for this evening!"—said I, as my eye rapidly run over the pages of the "American Farmer" the instant it came from the post-office, and I saw the mass of pleasant matter with which it was filled. "Come boy, light the lamp—put a hickory log upon the fire—bring me the rocking chair, and you little ones go to the nursery." All is done, and here I am composedly putting a quid in my mouth, just as I finished cutting the leaves. First article, as usual, very excellent directions, Mr. Editor, you give for December, and many thanks to you for wishing us all such blessings as you do on taking your leave of us for 1847, and I say in thanking you kindly, *the same to you and all your family.*"

"*The Renovation of Worn-out Lands.*" What! Col. Capron in the field again? "*Old Virginny never tire!*" What a fruitful subject! What a glorious subject! How important it has become, and its benefits to the public have been commensurate with its importance—I must say Col., *this article is a crack article—my friend, you improve as fast in writing as*

your lands have improved by the adoption of the new system—neither are now “old-fielders.” True to his system, I suspect, as soon as he thought agriculture a pleasant and money making pursuit, he embarked in it, and made himself acquainted with it as a practical question, and studied the theory too as a Science. He consequently read and thought deeply, he experimented upon what he had found to be a correct course so far as reason alone could prove it. He thus studied—has furnished his mind with foreign matter—with bought fertilizers—the printed experience and theory of able minds; by these means he has attained his ends—he has become not only a practical farmer, but an able agricultural writer, while his once barren and desolate heaths have assumed the aspect of verdant lawns, and the “wilderness has blossomed as the rose.” He no more trusted to the thread-bare—out-at-the-elbows—“self-renewing system,” in reference to his mind, than he did to the same system to improve his fields—had he done so, he would have been like many of his friends and neighbors, congratulating himself at sixty years of age that they had never believed in book learning for farmers—all time lost and worse than lost,—for it put foolish notions in people’s heads, and he never had read any paper on agriculture, and had made a snug living, and by experience made his farm yield a great deal more than it did when he got it; that is, when “he got it,” it produced 4 bushels of wheat, and 1 to 2 barrels of corn per acre, which was forty years ago; and “now my grandson fifteen years old this month, tells me he measured the crop of corn and the number of acres, and it was over four barrels to the acre—and my wheat yielded me six bushels per acre, and the fallow wheat yielded ten bushels, as near as I could come at it.” Such would be the Col’s statement when he got to be sixty years of age, if he had relied upon the “self-renewing system,” by green crops or otherwise. On such lands as Col. C. owns unless a man pursues his system of buying mineral manures or others which supply to the land what it wants to give it the vegetative and life-sustaining qualities, he had better give it away and run off, for it will be a mill-stone about his neck, that will keep him down, here and hereafter too, if he be a sensitive and sensible man. There would be no hope for him. Those who have lived on those lands heretofore lived like princes, for they had other resources and the lands yielded far better; then one pound of tobacco was worth four pounds now, and then too, there was a market along the whole route of the turnpike for any and everything—But they worked the land to death—but few know the utter destitution of Col. C’s client—oh! how sad it was to see the kildees, and hear their mournful cry of utter starvation. A facetious friend said to me, “you wonder why these birds do not remove; the truth is, they have not the strength to get away—if they rise above the ground the wind blows them to pieces, they have become so very fragile.” The Col. deserves great credit for the boldness and daring he displayed in essaying to restore fertility to such lands—such an attempt was at first characterized by the neighbors as “fool-hardiness”—just such daring which if displayed on the Mexican arena would make him something more than Colonel of Cavalry. He has satisfied his neighbors that at no cost, or permanent cost, those lands can be made to produce large crops, and be fruitful and productive as any lands of our country. His views in regard to “top-dressing” are very excellent, as I know from experience—my farm has improved wonderfully in a few years, and

many persons ask me what is your secret? Secret! there is none—I keep but little stock and depasture but lightly, and I use most of the manure made on the farm in top-dressing the young clover and other grasses. I have improved many galls by covering them for two years with brush and briars.

I was particularly gratified in the perusal of an article signed “R. S. W.” I hope he will often contribute to your columns, as the force and beauty of his style is not less observable than the correctness of his sentiments, and the practical conclusions at which he arrives.

Your correspondent “C.” says that plaster has been by some used “with visible advantage on timothy”—The effect must have been produced by some other cause not visible, for it has long been an acceded fact in agriculture that plaster only benefited broad-leaved plants,—that spear-grasses derived no benefit from the use of it, while corn, clover, cabbage, tobacco, &c. were greatly improved by its use. Such has been the received opinion since the experiments of Sir Humphrey Davy, afterwards confirmed by Liebig, Thaer, and every agricultural chemist—I of course mean when used in minute quantities as 1 bushel per acre for instance. Mr. “C.” says also, “the idea of its acting on the leaves of the grass and only on one crop is entirely exploded here. I saw in a neighbor’s field some dark green ridges in the clover, where it seemed to be twice as high on the other parts, and was told by him that he had used plaster on a potato crop in the drills, two years before, and what I saw was the effect of that application.” It is highly probable it was then on the potatoes in the rows used heavily, and if so, no question of its effects being seen years after, for the large portion of lime which is a component of plaster, would have a visible effect on the land for several years, at least in proportion to the amount used. There are 32 parts of lime in every 100 parts of plaster, I believe, which is over 1 peck of lime in every bushel of plaster. To this extent its qualities are lasting and effects visible in proportion to the quantity sown. Plaster is of lasting benefit to the soil, because of its action upon the grasses; and thus aids the land in reinvigorating itself, by means of an increased amount of vegetable matter to be decomposed above and below its surface, which increase is caused mainly by the plaster being the chemical agent by which the grasses receive valuable sustenance from the land. In this case plaster may be said to improve the soil; but where the plants are cut off, as corn, wheat, tobacco, cabbage, &c., then the land itself is only improved by the use of plaster to the extent of the lime in the plaster. This improvement would not be, I think, perceptible if plaster, as is usual, was sown at the rate of one or two bushels per acre. While on this subject, I will state it as a fact, that after a series of years, on the same land, plaster loses its effect to a great degree. On land which for years has not had plaster upon it, or never had, then its influence is seen most palpably. The reason—the philosophical why it is so—is what I cannot give. I know not why, but it is so beyond cavil. Mr. “C’s.” statements in regard to Bone-dust and Guano are interesting, as proofs additional to what we have had from many other writers of their great usefulness to the farmer. I have taken the liberty to offer these views, some of them slightly adverse to the views of “C.” but I hope he will take no exception to them, as they were written in that spirit of frankness which characterized his article, and in the hope that it might be an incentive to his continu-

ing, his efforts, and saying "at another time," what he "wished to say," but left unsaid for the purpose, I trust of showing the truth of that beautiful figure he so happily uses in closing his communication.—I would say to him and to all your able contributors, once for all, that if I have dared to be a friendly censor, they will not find me censorious.

In the "Constitution of the Charles County Agricultural Society," the 8th and 12th articles, are worthy the attention of kindred associations, and should be engrafted in their Constitutions. If the spirit of those articles are adhered to by those appointed to act under them, a fund of valuable information, useful statistics, and correct data for sound reflection, will be amassed, that will be of incalculable value to those who read and profit by them, and will redound to the honor of their respective authors. By the reports of the several committees to be appointed under the 12th art. I look forward with confidence, that more good will result to the cause of agriculture in that county than could be expected from a simple show of all the *over-grown FAT STOCK* in the Union. Men no longer care to have their physical eyes charmed and gratified in looking upon a pretty horse, a fine ox, or a beautiful sheep, but their mental eyes have been opened lately and they wish to look on what is epecurian diet for their systems—these are the eyes now to be pleased—*mind* is to be fed with rich and wholesome food in essays and reports upon the all important subjects of renovating lands too long abandoned; and the mind is to be treated with the rich entertainment at which it learns to make many blades of grass grow where none grew before. It is no longer the sensual, but the intellectual appetite that is desired to be whetted and then gratified. It speaks well for the gentlemen of Charles county, Gen. Chapman and others, that in their very first start, they make provision for intellectual gratification, knowing full well that if the "inner man" be provided for, the "outward" will be taken care of, as a matter of course. Success to their efforts!

"*Mr. Bowie's great Speech.*"—After the many handsome compliments paid to it, yours among the number, I shall decline saying but one word about it, and that is, I was not surprised at all to find it called a *great speech*, for I know T. F. Bowie, Esq. and *know* that he is the man that can do those things, "as well as the next man." Talking about *speeches*, Mr. Stevenson of Va. has lately delivered one before an Agricultural Society in Virginia, and like Mr. B's a bright gem that should adorn the American Farmer. It will prove very acceptable to your readers.

At the "*Talbot County Cattle Show*," you, Mr. Editor, must have had a nice time—lots of nice things—pretty girls—great fun—good eating and drinking, in the bargain. No wonder you wrote so long and flashy an account of it. Turn and turn about is but fair play, so next year I'll go to Talbot Show if you will come to "Prince George's County Fair"—you will have "a *sweet time* I assure ye," and be most welcome. But a word in your ear, you say among the "*Household manufactures*," that there were "jellies, soap, starch, &c." and only one *liquid article* mentioned, "*vinegar*;" now are you sure, have you a *clear* recollection that on that very delightful occasion you *tasted* nothing in the *fluid* line, nothing but "*vinegar*," or was it that you mentioned not the *thing understood*, which perhaps added vigor to the pen that wrote that account so complimentary to the *fair* and the gallant of Talbot—don't be

bashful!—was there not some home-brewed ale—some *sweet cordial*, or a "*little nice wine*?" *Verb. sat.*

"*Draining—Under Draining.*"—Too much cannot be said upon the good effects of a thorough system of under-draining—I was delighted to find you again calling attention to this very important subject—hundreds of acres of land now destitute of all vegetation except some wild sour grass, and called poor heath-land, would be very productive if *only under-drained*. It would need in some instances no manure, but yield abundantly, as soon as perfectly drained. There are many powerful illustrations of the great efficacy of thorough draining; among them are to be found those miles of beautiful under-draining, on Col. Capron's farm, in Prince George's, which improved those fields almost as much as the bought fertilizers improved his farm in Anne Arundel.—While others have been solely attributing to manure—mineral, and animal, and vegetable—the improved condition of Col. C's. lands, I have thought that but for those under-drains, his money would have been lost—his manure been useless, and only "wasted its sweetness on desert air." His skill and science in the management of his land is no where more visible, and of more value, than is displayed by these long lines of ditches. Where once a cat could scarcely crawl, or a raccoon find room to bear him up in the fight, now can safely be driven a "big-six-mule-team" with its load of sweet-scented red-top and timothy hay—no ground is lost, nor would you know that there was a drain under ground, unless you saw the *wire-wicket* work mouth of it where it empties itself in the chief canal, running through the field; this big ditch is left open. The Col. would do a great service to the public, at his earliest leisure, by expressing his views upon this subject, stating the benefits he has found resulting from it—the mode of building blind ditches, the cost, &c. with drawings, or plans showing the appearance that these drains present. Such a communication would be of great value, and deserve the thanks of the public.

PATUXENT PLANTER.

THE MARYLAND FARMERS' CLUB. SUGGESTIONS FOR FORMING DISTRICT CLUBS

MONTGOMERY, January 11, 1848.

To the Editor of the American Farmer.

DEAR SIR:—When in Baltimore last fall, in conversation about the *Agricultural Club of Maryland*, you invited me to write my thoughts on that subject, promising to insert them in your very valuable journal. At that time I declined, hoping you would canvass the matter, as men of my age should be very cautious how they undertake to treat a subject so important to the best interests of our State. Finding that nothing has, as yet, appeared—believing the Agricultural interest of the State is suffering much from the neglect of a proper organization of the State Club, I am inclined, (contrary to my inclination,) by a regard for the prosperity of our profession and the consequent welfare of the State, to give my views, not so much for their intrinsic value as to induce others, more competent than I am, to investigate this highly interesting subject. I have always thought, as the State Club is composed of members from every part of the State and they required to meet *monthly* in the city of Baltimore, that it would not be likely to bring together the most practical experienced and intelligent farmers—men who from necessity and inclination, attend strictly to their business could not afford to lose their time

and expenses; many far advanced in years would be unwilling to make frequent and long journeys, for were they to become members, they would seldom attend: therefore, the few in attendance would become discouraged and the institution ruined. Under the present system, the most valuable, as well for their scientific as practical knowledge, are prevented becoming useful members; the club then must necessarily be composed of gentlemen of wealth, who do not attend to the daily business of their farms, which attention is indispensable to make a thorough agriculturist. I do not wish, by any means, to depreciate the wealthy; they can and no doubt will do much good. Their wealth will enable them to enter freely and extensively into experiments, to contribute freely and liberally to the establishing of libraries for the dissemination of useful knowledge; but their extensive business and pleasures will be apt to produce non-attendance, the great bane of all, especially Farmers' Clubs. Observation and experience have convinced me that no man ought to become a member of a club unless he attends punctually. The present general condition of farmers is ignorance of their occupation, and too often a great lack of even common education. Under these circumstances, would it not be wise to procure and disseminate information by establishing libraries at convenient places throughout the State, that the present race of tillers of the earth may have the benefit of instruction? They must continue to labor under serious disadvantages, yet by this means their condition may be much ameliorated. We have cause to rejoice that many farmers have become convinced of the need of more information to successfully conduct their business: May we not hope that they will be willing to unite to procure a proper system of education for their children, which may fit and qualify them for their future occupation and position in society. Farmers should be well educated men, capable to judge of their interests and demand their rights. I can but think that the agricultural interest should be fairly represented in our Legislative halls, not by ignorant, but capable and intelligent men. I do not know a school in Maryland properly arranged or constituted for the education of farmers. Surely this should not be. Those, as is their case, who represent the great wealth of the State, and who far outnumber all others, should be better cared for. Having thus digressed, I will now return to the subject.

I have not the vanity to suppose I can draw up a perfect plan for the Maryland Club. I will, however, offer my opinion, hoping some good may result. It will be perceived from the objections offered to the present organization, that I am in favor of *neighborhood clubs*. LET A CLUB BE FORMED IN EVERY ELECTION DISTRICT IN EACH COUNTY; the funds of each to be expended in establishing a Library, and each club to meet, at least once every month, and spend the day in imparting information to each other and in discussing subjects promotive of the interests of farmers. If fairs are deemed necessary, the several clubs of the county can convene at a central place for that purpose yearly; each district club should send a delegation of one or more, composed of its most experienced and intelligent members, to meet in Baltimore once a year, which said delegation shall compose the Maryland Farmers' Club. From the natural desire of man to appear to the best advantage, it is presumable the auxiliary clubs will be careful to delegate their most intelligent members to the State Club. You would, thereby, have an as-

semblage from all parts of the State, composed of the best material for talents and wisdom from the Agricultural community, whose duty should extend beyond making reports of the experiments of the several district clubs, discuss mooted points on farming—but much more should and no doubt would be done by such an assembly of intelligence, wisdom, and experience. The results of their deliberations would be carried back and impressed upon the district clubs, rousing them to a sense of their own rights and interests,—prominent among which are a proper system of education to be devised and adopted for the education of youths destined for farming, including books as well as teachers; also to form the best plans and means of union to prevent frauds and impositions being practised upon us in the sales of our produce and purchases of our supplies, together with many other subjects momentous to farmers' interests. From such a source, the farmers, generally, would be enabled to understand their interests and maintain their rights by united action. Tillers of the earth constitute the great majority of the people, therefore, in their hands lay all power, yet the legislators have done nothing to promote their interest. The merchant's, the manufacturer's, and the mechanic's interests have been regarded and protected, while nothing, any worse than nothing, has been done for the Agriculturist. The reason is obvious. Farmers, as a community, are quiet and unobtrusive; unfortunately too many of them illiterate, each pulling his own way, without plan or combinations, having no fixed purpose or object in view. Some such plan as the one suggested would enlighten and combine farmers and cause their voice to be heard, even in our Legislative halls, where that voice has never yet been heard with attention.

Most respectfully,

WM. BREWER.

ON SEEDING GRASS IN AUGUST.

NEW OXFORD, January 18th, 1848.

To the Editor of the American Farmer.

DEAR SIR:—As I have a leisure moment I will send you my plan of Seeding Grass in August. I have had some experience in sowing timothy seed, but for the last five years I had no need of setting any more, on account of my low land all being under-drained, which I now cultivate in rotation with grass and grain. My plan of setting "bound out" meadow to grass is, after mowing, generally in July or August, and as soon as the hay is removed, take a strong team and plow the sward as evenly and nicely as possible—try and throw each furrow slice flat, and when plowed take a heavy roller and roll it well; then put on your lime, (if you intend to lime,) from fifty to one hundred bushels per acre, and let it lay a few weeks, so that the sward may settle and get moist and the lime slack; during this time you may put on your manure—it should be compost or very fine rotted manure—you may manure as heavy as you please. Then spread your manure and lime, after which you will harrow it first lengthwise, then across, till you have it in good tilth, as fine as you would wish to have it. If your harrow appears too light, throw some weight on, and then you will sow one or two bushels of oats per acre, as you may think proper. The oats are intended to protect the young grass from drought, and will also protect it from the frost during the winter. Perhaps further south than 40 deg. north latitude, the oats might not be killed by the frost, and therefore, might kill the grass in

its turn. On my farm, oats never survive the winter; therefore, it is very beneficial to protect the grass. The oats are to be harrowed in, and when this is done, sow from 5 to 8 quarts of timothy seed per acre and roll it in; if you have no roller, take a very light harrow. I have sometimes neither rolled nor harrowed, and it did well. If the season should not be favorable, and the grass should not set well, you may in time, if you see that it does not turn out well, cultivate it shallow without turning the sward and re-sow perhaps in time. I have sown in August, but mostly in the beginning of September, and I have seen some neighbors re-sow as late as October, and it did well; by sowing in August you have two chances for a crop. If it should fail during the winter, you may sow a few quarts of timothy with a few quarts of cloverseed the last of February or March following. Spring sown should be done in a frosty morning, so that when the rays of the sun cover the ground it will cover the seeds. The clover will increase the crop for one or two years, and will then give way and make room for the timothy. In March or April you ought to sow plaster or ashes, as you may think proper. In this way I have renovated "bound out land," which would not give half a ton of hay per acre, and through this process would yield from two to three tons per acre for some years after; and by this plan you will lose nothing, unless a pasture. The new crop should not be pastured till after the first mowing.

I will now conclude by wishing the "American Farmer" success, and also urge upon the able champions for the renovating of worn-out land, to "go ahead." Their efforts will bring more laborers into the field, who will contribute more to the American Farmer, which will enliven its subscribers and bring peace and comfort to every farmer's family. You will do with this paper as you please, as it is badly written, for I am not so well skilled with the pen as I am with the plow or other farm implements.

Yours respectfully,

J. L. NOEL.

Adams county, Pa.

ON THE USE OF MARL.

WESTMINSTER FARM, near Big Mills P. O., }
Dorchester Co., E. S., Md., Dec. 28, 1847. }

To the Editor of the American Farmer.

SIR:—Last, or rather this year, I tried 800 bushels marl on my corn crop. It was bought in Virginia and delivered at the village of Vienna, some 6 miles from our residence. It was "sticky" and heavy, so that the hauling was a heavy business. It was applied after the corn was planted. This I thought was the better plan, after reading Mr. Stabler's idea in your paper, i. e., keeping alkalies as near the surface as possible. There has not been any perceptible difference in the corn. May I not look for an improvement in the wheat and grass? I am but a tyro in the farming business, but am desirous of improving, being fond of it.

Wishing you a happy Christmas and prosperous New year, I am your ob't. serv't,

LEVIN HODSON.

We think our correspondent need not despair that the marl he applied will tell on future crops, although he was unable to observe any visible effects upon his last year's corn crop. The active principle in the marl is the carbonate of lime which it contains, and

that, does not at all times show its effects very promptly either in newly burnt or slacked lime, or in marl—sooner, however, in the former than the latter, in consequence of its superior quickness and more rapid action upon the vegetable matter in the soil. One of the offices of both lime, freshly burned, and in marl, is to promote the decomposition of such bodies and form them into food for plants, and for this reason it is, that where soils are filled with them the effects of calcareous manures are the more speedily seen, and their benefits the earlier experienced. But of their ultimate service to any land which is not too wet to be benefitted by such substances, there can be no possible grounds to doubt,—and we think we can promise that the present year's wheat and grass crops will both feel and show the good effects of the application in question.—ED. AM. FARMER.

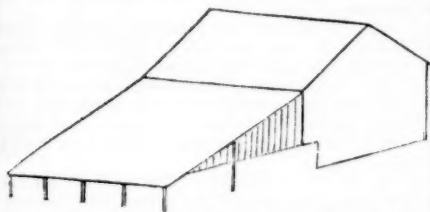
For the American Farmer.

SAVE YOUR MANURE.

MR. EDITOR:—Much has been said, and more has been written, about the various properties, varieties, manufacture, and also the importance of manures as fertilizers of our soil, but very little is said, and indeed very little regard seems to be had, about the importance or the means of securing manures from detriment and waste when they are accumulated and made—I allude more particularly to barn-yard manure. In traversing this entire State, how many heaps and beds of barn-yard manure (resting indeed in their proper and appropriate places) will you find sheltered and secured from the combined effects of the sun and rain, and particularly from the drenching and draining effects of the latter? From how many manure heaps and barn-yards will you see a dark, coffee colored nutriment, during, and perhaps for several days subsequent, to a heavy or even a moderate rain, coursing its way into the public road in front of the barn, and perhaps the juxta dwelling, retarding the progress of the traveller by the mire spot until he has time to see and remark the muddy cause, and wonder to himself whether the worthy proprietor is aware how much his soil is actually suffering by supporting such a public nuisance? Perhaps his neighbor may collect this current from his yard into a single channel to discharge itself into the nearest passing stream, without a suspicion of any actual waste. Another farmer may be compelled to witness with painful sensitiveness, the unavoidable current, which he apprehends, from its suspicious and convincing appearance, to be stealing away every soluble matter and substance from his manure, and notwithstanding every effort to prevent and obviate the difficulty, by guttering the eaves of his barn roof, and circumscribing his yard with trenches, &c., still the supersaturating quantities of rain will overflow every preventative—and if he sinks an excavation sufficiently large and deep to retain the whole, within the limits of his yard, he finds a tedious as well as a most difficult task to get it out upon his land. Now to all such I would say, that the best plan I have ever adopted as a remedy for every difficulty is, to cover my entire manure heap with a tight roof. There are very few barns in this State (being mostly of the switzer order) that will not, readily, admit the attachment of a shed of sufficient extent to cover securely all the manure that can be gathered about the barn. Many barns are set upon a hill side, so that,

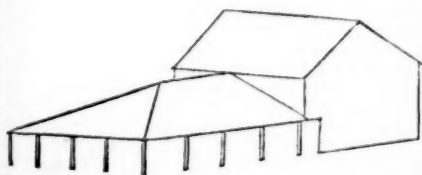
advantage being taken of the slope of the hill, a single

1



roof, represented by Fig. 1, might be started from the eaves, in front of the stabling, and continued in one sheet, of sufficient length to cover all the manure thrown out from the different stalls, and spread evenly over the entire surface covered by the roof, and incorporated with all the weeds, litter, and indeed every decomposable material that can be gathered upon the farm. If the barn be placed upon a surface of ground more level, or if a larger extent of covering be required, the plan represented by Fig. 2

2



might be adopted. These sheds can easily, simply, and cheaply be constructed by setting the posts into the ground, (that part rising above the surface being hewed or not,) the upper ends of which support the plates upon which the rafters are to rest. The thing is so simple as to need no other explanation, I think. The sides may all be left open for the ingress and egress of cattle, except, perhaps, a northern or a western side, and this can be closed by wide doors hung to the posts, so that broad spaces may be opened at any time for hauling in litter or hauling out manure. Another advantage of such an appendage to a barn, in addition to the protection of the manure from the washing and draining effects of rain, &c., is, by having all the manure from the different stables evenly spread over the entire surface, and incorporated with whatever is designed to be converted into manure, the surface of the bed rises uniformly and evenly, and besides, the properties of the manure are perfectly equalized throughout the entire mass—and then, if plaster and refuse salt be liberally sprinkled upon the bed as it accumulates, decomposition is not only accelerated, but all the ammoniacal gases are fixed and secure. Those rich and valuable salts, the sulphate and muriate of ammonia, will not be washed away—they are safe—the manure is all there and in readiness to be used at any time the most convenient, or wherever wanted. The space beneath this spacious covering is a place at all times inviting, by its comforts afforded to cattle, as a shelter and protection from the chilling rain and the storm of winter, as well as the comforting shade in summer. This place also catches nearly if not quite all the droppings of the cattle during the time they are not confined to their stalls. During the pasturing seasons of cattle, if they are yarded about the barn at night, it should be the province and duty of

some one upon the farm twice, or thrice a week, at least, to clean up the yards and wheel the droppings under the shed. It would be well to excavate a place about the central part of the shed lower than any other place, so that all the liquid manure which would drain from the bed might settle into it. Here a pump might be set sufficiently high, not only to overtop the surface of the manure, at all times gathering and rising around the stock like that of any other of the posts, but to throw this liquid at any time as it collects over the whole bed, either for absorption or accelerating decomposition; and if this should not be sufficient for this latter purpose, any quantity of water needed can be let in when the next shower of rain comes. A sufficient number of light racks, made in the shape of the letter V, accessible at each side, should be suspended from above, leaving all clear beneath them, so that they can be raised or depressed, just as the surface of the manure bed rises by accumulation. These racks should be turned also in various directions, so that none of the weaker cattle may be taken in surprise, by the approach of any of the more authoritative of the herd. And in short, could I adduce the testimony of my own experience and observation, as to the practical and actual economy and advantage of this affair, I would say, at least, that it will return to me every year its entire cost with ample interest, although I calculate it will last unimpaired many years.

Should you, Mr. Editor, deem the above desultory remarks worthy of a place, either in the columns of the American Farmer or under your table, you are at liberty to use them accordingly. If I have not been sufficiently explicit, I shall be pleased to have any of your numerous readers (who may be interested) call at any time and examine for themselves, not this matter alone, but also the fencing machinery, and the fencing itself, as the result of its operation, advertised in the last August number of your valuable journal, and so kindly noticed by your worthy friend, A. B. Davis, Esq., Triadelphia.

Very respectfully yours, &c.,

CHESTER COLEMAN.

Mount Pleasant, Frederick Co., Md., Jan. 21, 1848.

P. S. I had designed to say, that two panels of the fencing alluded to above, when the upper and lower rails are slipped and fastened to the ends of the pickets, form the sides of just the racks (when suspended) from which my own cattle feed their straw and hay. C. C.

For the American Farmer.

ON THE USE OF ASHES.

MR. EDITOR—Dear Sir:—I have been promising you for years to give an account of some of the experiments I have made by the use of ashes, and as I am somewhat at leisure this winter, having moved to Baltimore, and not having commenced business yet, with your permission I will make a beginning, though it is with diffidence, for I find my conclusions drawn from my observation and experiments, do not concur with many opinions advanced by chemists, as well as many of your able correspondents; and if my conclusions are all correct, I find I shall be in danger of being found in array with some of your opinions, and therefore I wish you and your correspondents to understand, that I do not advance what I may write as being certain facts, as often our most sanguine opinions are found to be entire visions, as we often attribute effects to wrong causes; and I shall be much gratified to be set right on this subject, if I am in er-

ror, as I have paid near two thousand dollars for ashes, besides many hundreds for other manures, and still persist in the high pressure system, as you may judge by the present arrangement on my farm, which is, to buy some kind of manure, either lime, ashes, or guano, to apply to all the crops, either of tobacco, corn or small grain, though it may receive a dressing of compost or barn-yard manure. Probably there is no manure which has been used so long and extensively as ashes on which there is such diversity of opinion as to how they act on vegetation, and which are the most valuable properties in their composition.

Professor Baer, in a lecture delivered last August, before the St. Mary's county Agricultural Society, stated that leached ashes contained half pound potash per bushel and 15 per cent. of lime, and was not worth two cents per bushel, the potash and lime being the only parts of any value to the farmer, and advised farmers not to purchase them at that price.

Professor Jackson, in one of his lectures delivered in Boston, stated that a farm in his knowledge which was a blowing sand, a pine barren, and almost hopeless, on which ten bushels of corn could not be grown to the acre, by the judicious application of ashes had been made to produce forty or fifty bushels to the acre, and that leached ashes are nearly as beneficial as unleached when there is not too much acid in the soil.—*Cultivator*, vol. 7, page 135.

Mr. Stimson gives an account of his great success in raising wheat on land in which sand predominated by application of leached ashes, and prefers them to unleached ashes.—*American Farmer*, Nov. 3, (second series,) page 380.

By reference to Liebig's Agricultural Chemistry, page 73 to 83, inclusive, it will be seen that it does not require a large supply of potash to grow large crops of wheat, which I had thought required the largest quantity of potash of any of the bread grains. But if Dr. Muse is right, I am in error, for the Dr. says in his communication in the last Farmer, that oats consume ten or twelve times as much as wheat, and that fifty to a hundred bushels is sufficient per acre.

By reference to the table of analysis taken from Davy's Agricultural Chemistry, and Sprengel and Berthier, as laid down in your last No., it will be evident that all the effects produced by leached ashes cannot be from the little potash that may remain and the lime, as the two applied separately in their pure state would not give the same impulse to vegetation as is attributed to leached ashes; and many other extracts might be made, but I think the above will show that there is a great diversity of opinion on this subject, and as I am anxious for light, I shall state my conclusions and give the experiments which have influenced my judgment, with the hope that some more discerning mind may set the matter at rest by defining the true use of them as a promoter of the growth of vegetation, and the best mode of application, as well as the most profitable quantity to apply.

Some of the conclusions to which I have been led by observation and experiments are these—

1st. That there is not as much difference in the value of leached and unleached ashes as are indicated by the presence of potash and lime.

2d. That ashes is the only manure which I have known which will make poor land grow grain crops for many successive years without any other application, or the same to be repeated.

3d. That ashes will prepare the soil for the growth of more kinds of crops than any other manure I have seen.

4th. That they are the most durable manure I have seen used, as I have not known any soil return to its former poverty which had received a large dressing of ashes.

5th. That ashes will refund the purchase money sooner than any other manure I have seen, to leave the same amount of permanent improvement.

6th. That they impart a permanent quality to the soil which is not found in so large proportion in any other manure, not having known wheat seriously injured by lodging or rust where ashes have been applied largely.

In my next I shall proceed to lay down my observation and experiments, going back more than thirty years.

Yours respectfully,

R. A. MILBURN.

Baltimore, January 20th, 1848.

A FINE HOG.

WOOD END, Va., Jan. 18th, 1848.

To the Editor of the American Farmer.

DEAR SIR:—At your request I herewith enclose you the weight of my large hog, *Tecumseh*, which I slaughtered on the 6th inst. His net weight was 690 pounds, and measured 7 ft. 11 inches in length, and 7 feet 2 inches round the girth, after he was dressed and hung up. He was about 5 years old, and not very fat, having been altered late in the season and put up to fatten on the 2d day of November last and never forced, previous to being penned, having been selected for a stock hog and suffered to roam the country at large, frequently being from 10 to 12 miles from home. His sire was a white Berkshire hog, imported by H. & R. D. Shepherd, and out of a Chester sow. Neither sire nor dam would have exceeded two hundred pounds.

Although the great and unnatural excitement that pervaded the country a few years ago has died away, the fondness for "bacon ham" still exists, and the improvement of the hog should not be without interest to the farmer.

Now let us see how we can account for the great size of this hog. Is it not that the cross proved to be a judicious one?—and should not this, then, lead us to reflect, if such advantages are to be gained by crossing, is it not well worth our attention? Nothing would be more easy than for our farmers to modify and manufacture a breed of hogs to suit their situation, for there is no animal so easily changed in form and moulded to our purposes as the hog. Our chief object in crossing is to remedy defects, and to acquire and perpetuate desirable qualities; and if we still persist in breeding in and in, our stock will certainly engender a tenderness of constitution as well as a variety of internal diseases, and will prove both unprolific and unprofitable.

So far as the human race is concerned, the testimony of the ablest writers is decisive against in and in breeding, thereby entailing upon their offspring hereditary and constitutional diseases.

Byron alludes very forcibly to the cause of the great want of intellect in the Royal family, and ascribes the cause to this very circumstance. He says—

"They bred in and in, as might be known,
Marrying their cousins, nay their aunts and nieces,
Which always spoil the breed, if it increases."

It is an event much to be deplored, that so slight attention is paid to so valuable an animal as the hog—for none certainly enters so largely in the consumption of man, and that too at so little expens

and trouble. No stock on a farm can be made more profitable, with so small a proportion of care and attention. How often do you see farmers buying half-bred animals to breed from, with the expectation of improving their stock, and the result invariably proves a complete failure. I have often seen half-breeds, both as to size, form, and appearance, equal, if not superior, to their sires or dams; but I have never known an instance where any dependance could be placed upon the produce of such an animal, and where the same description of stock would be perpetuated. This one circumstance has been of more injury to the improvement of our stock than any other, and I am of the opinion that it would be advisable for breeders of stock never to part with a half-bred animal for a breeder, as it will certainly tend greatly to diminish the true value of the original breed.

I offer you these brief and desultory remarks as some slight return for the great advantage and instruction I have already received from your highly useful paper, and beg you to accept my best wishes for its future prosperity.

Very respectfully your ob't serv't.

ROBERT W. BAYLOR.

THE POTATO ROT.

WEST RIVER, *A. A. Co., Md.* }
January 7th, 1848. }

To the Editor of the American Farmer.

I have just hastily perused a paper on the Potato Rot, published in your truly valuable journal for this month, the suggestions of which, so closely resemble those I have adopted, that I feel inclined to give you the result of my limited experience. There is nothing original in my plans, yet the results corroborate the opinions of several judicious writers who have appeared in the Farmer.

I am indebted for my share of sound potatoes to Mr. Bowie's communication on the subject of the Rot, and to Mr. Gowan's reply thereto, as found in your paper. My land, being almost all light sandy loam, there was no difficulty in selecting dry portions, none of which were too rich; besides, this soil suited my preconceived notions; but Mr. Gowan's letter satisfied me, that the excessive heat of the summer sun produced a deleterious influence upon shallow-planted potatoes, I determined to plough deep. Two portions of two adjoining fields, slightly rolling, were selected, ploughed, harrowed, and laid off in drills 4 feet apart, 6 to 7 inches deep—rotted stable manure was shaken into the drills from baskets; the sets, previously rolled in plaster, were placed a foot apart; manure was again shaken in, in small quantity, then dusted with plaster, and covered—they received the usual cultivation: the 1st planting was done in the first week of May; the 2d planting, in the last week of same month. I used the white and blue Mercer; the white, obtained in the neighborhood, the blue in Baltimore. This crop was gathered in November, and though out of 200 bushels there were between 3 and 4 bushels, more or less decayed, yet there was found not one specimen of the Rot, with its characteristic stinking smell, and contagious nature. Many of the unsound ones were divested of the decayed portion, and laid aside to see the result; there was no farther decay. Two months have elapsed and the crop continues sound. My dwelling and garden are situated on the highest hill for many miles around, the ground declines rapidly on three sides, presenting a dry sandy soil—un-

til the past year, the garden was a hedge field—it had about 30 horse cart loads of rotted stable manure spread upon it, was ploughed, harrowed, and divided into squares—its area was $\frac{3}{4}$ of an acre. The early potatoes, white mercer, were planted about the middle of March, just as were those in the field,—this bed produced fine, large, sound roots; not more than a dozen in four bushels were imperfect; these presented small excavated spots, with irregular margins, and $\frac{1}{4}$ of an inch in depth, looking as if an insect had attacked them while in the ground—they were laid aside, but no change having occurred after several weeks, they were used—part of this square was good sand, and the only difference between it and the fields, consisted in being higher and drier.

Another square was planted in the 1st week of June, with blue mercer, too small to be cut—a mixture of dry stable manure and leached ashes, equal parts, was laid in rows, three feet apart, upon the surface of the bed, the roots placed in the rows one foot apart, then covered with the same mixture upon which was dashed some gypsum; the earth was now drawn over from each side, and patted, so as to form a ridge about 4 inches high—when the vines had reached an altitude of 6 or 8 inches, more dirt was drawn up on each side as before, to the height of 4 or 5 inches more, presenting now, high, rounded drills, with an alley or gutter between each.



This diagram will give the idea—the black lines show the surface of the ground, the position of the potato, and form of drill at planting—the dotted lines show the relative position and forms at last working—you observe the root is above the level of the alleys—my object was to give the potato a good bed and plenty of dirt to screen it from the sun's rays, and at the same time guard it from excessive moisture. The product was a good yield of small potatoes, but sound without an exception. I attribute their size to late planting and late hilling. Another trial was made in the same garden in rather better ground—the long white mercer was used; planted in deep drills; covered with a compost of dry stable manure and leached ashes, equal portions; sprinkled with plaster, and covered flat. After the vines came up well, spread a layer of ashes, saturated with urine on each side of the vines, then spaded between the drills; nothing more was done. The vines were most luxuriant; many over 4 feet in length, and covered every portion of the ground—indeed I feared there would be very few tubers, so I broke the vines down with a stick. This little patch produced abundantly—there were but four rows, 17 $\frac{1}{2}$ feet long, 3 feet apart; the yield was a little over a bushel and half of good sized, sound potatoes, without exception. Many of my neighbors have lost most of their crop, some have lost all—so far as I have been able to enquire, the soils were various, but the plantings, shallow. In this region, I believe rich soils are selected for potatoes; the cultivation, sometimes flat; sometimes ridged. The gentleman from whom I obtained my seed, lost his entire crop, 1200 bushels; on two of the farms adjoining me, the crops shared the same fate—My experience is too limited to allow me to give advice in this matter, yet my own rule of action founded on these observations will be, to choose dry light soil, sound seed, plant

deep, and manure with a compost which shall contain ashes in excess. That such soils will admit rich manuring, and produce luxuriant growths without injury to the potato is, I think, proved by the little patch above mentioned. The cause of the *Rot* is a mystery—I mean its predisposing cause particularly,—as much so as that of Asiatic Cholera—yet we may find a remedy for the disease as we have for that of the Eastern pestilence—You see, that without knowing it, I have adopted a plan similar to that recommended by Mr. Cox in his prize essay, published in this month's Farmer. I purpose if I have health, to pay a little attention to potato culture during the coming season.

Your much obliged friend,
J. B. OWENS.

RAIL-WAY HORSE POWER.

Having had an opportunity of perusing the following note from Mr. Calvert, we have obtained the liberty of publishing the same, as it will no doubt be of interest to many farmers who are now using the Rail-way Horse Power, and which, by the by, is becoming daily more in demand. The testimony of such men as Messrs. Chisolm, and Calvert, in its behalf, cannot fail to arrest attention and induce those desirous of obtaining machinery for propelling gins, threshers, fans, &c., to an examination of this horse power. Although we make but little pretension to a practical acquaintance with machinery, yet from the first exhibition of this power, and the disinterested testimony of those who were employed in attending to its operation, we have been impressed with the value of the machine, and have felt much interest in the extension of its use:

MOUNT AIRY, Prince Geo's. Co. Md.)
January 10, 1848.)

To E. Whitman, Jr., Esq.

DEAR SIR:—I have seen in the January No. of the American Farmer an extract from a communication of the Hon. Robt. Chisolm, which appeared in the December No. of the Albany Cultivator, in which he says—"The best and cheapest Horse Power for his purpose (ginning cotton) is the Rail-road horse power, made by Mr. Ezra Whitman, of Baltimore. The only objection I find to it is, that the horses or mules ought to be shod, which is rather inconvenient in our flat country, where few or no smiths can shoe, &c." From my own experience for the last three seasons, I will state a mode by which the objection above alluded to has been entirely removed, adding both economy and durability to your power.

Very soon after using your machine I discovered that the rough shoes of the horses were tearing away rapidly the slats on which they walked, at the same time that the horses slipped occasionally whenever those slats became wet. In order to obviate those evils, I directed my carpenter to get out strips of white oak two inches wide and half an inch thick, rounding the upper edges. I then had two of those strips nailed firmly with wrought nails to each slat. The shoes were then removed from the horses, and I immediately discovered that they stepped quicker, with more confidence, and that the propelling power had evidently increased one-third. I have since then used indiscriminately all the farm horses without shoes, and perfectly to my satisfaction.

In conclusion it affords me pleasure to state, after a long and severe trial, that your Horse power and Thresher have both answered my most sanguine expectations—that I have thrashed with it annually large crops of grain—that it has done its work well—that its wear is scarcely apparent, and that the cost of repair, as yet, has not been one cent.

Yours respectfully,
W. C. CALVERT.

THE PRINCIPLES OF ARTIFICIAL MANURING.

(Second Part.)

BY PROFESSOR JUSTUS LIEBIG.

TWENTY-FIVE years ago, when the manufacture of spa and mineral waters began, they met with violent opposition from the members of the Faculty, as being deprived of all the good qualities of the natural ones—as wanting, in a certain *conditio, sine qua non*—in a *spiritus rector*, or vital power, which alone gave them any medicinal qualities. Those times have passed now—Chemistry has demonstrated to a certainty what the constituents of those various waters are, and under what forms and compounds they are united in them. It has succeeded in combining them exactly in the same proportions, and in rendering them not only equal to the natural ones, but even more effective. Only from that time physicians were induced to connect certain effects on the human body with certain elements in the waters, and were enabled by the light of Science to add more of this element, or more of that; nay, to apply, instead of the waters themselves, the one active element alone, as is, for instance, the case with iodine in indurations and struma. It is well known that at this moment there are extensive manufactures of mineral waters in England, at Berlin, at Dresden, at Vienna, etc.

Now, I believe that the same principle may be applied, partially, at least, to the use of manufactured manures, which, in England, has just been called into existence. Guano, that powerful manure, the efficacy of which, in a judicious application, has been clearly demonstrated by the testimony of the most intelligent farmers, cannot be supplied for a much longer period, because the rich stores in Chili and Africa must be shortly exhausted. As it is only in very dry countries that it is found, we cannot expect to discover many more places containing it, and what are we then to do? My attention has often been directed to the question whether, according to our experience and the present state of Science, a manure might not be composed which could replace the genuine guano in its effects, and whether I could not, by a series of experiments, point out a way of preparing one equal to it in all its chemical and physical properties? You are well aware that we know with certainty all the elements of the guano, as well as the urine and solid fæces of men and animals. In like manner it seems to have verified the opinion which I have laid down in my work on Agriculture, that the salts manufactured in the laboratory have the same effect on the growth of plants if they are embodied to the fields, in the same forms in which the animals furnish them in their excrements. This must be evident to every one who knows that to produce these compounds in the laboratory, the same agencies and means are made use of which are employed by Nature. The fabrication of a manure, equal in its composition and effects to the solid and fluid excrements of animals and men, seems to me one of the most essential demands of

our time—more especially for a country like England, in which, from various circumstances, a rational Agriculture without a supply of manure, in some shape or other, *from without*, seems nearly impossible. Our reasoning will appear the more correct if we remember how different are the results which have been obtained by the different analyses of the different sorts of guano—how little the farmer can depend upon producing from a given quantity a certain effect, as the latter naturally varies according to the composition of the former. There are scarcely any two samples in the market with the same composition—nay, not even similar. The following salts may be regarded as the essential constituents of a powerful manure applicable to all descriptions of soil:

Earthy Phosphates.—The most important of these is *Phosphate of Lime*, which occurs in nature as a mineral called *apatite*. It is the principal component in bones, which, it may be observed, have been found most efficacious if calcined, consequently deprived of their animal matter. The rapidity of the effects of phosphate of lime on the growth of plants depends upon its greater or lesser solubility. Its amount of glue (gelatine) diminishes this solubility if the soil is rich in vegetable matters, which furnish carbonic acid by their decomposition, and which acid is required for rendering the phosphate of lime soluble in water, and introducing it into the organism of the plants. In the calcined state the bones act sufficiently quickly; but in those soils in which this cause of solubility is wanting their action is slower. In my work I had recommended the addition of a certain quantity of sulphuric acid, both in order to render the bones more soluble, and to change the neutral phosphate of the bones into gypsum, and into a phosphate which contains more acid—superphosphate of lime. I have been informed that this advice has been most extensively adopted, that the superphosphate of lime has been found to be a most efficacious manure, and that it forms already a most important article of Commerce. A second earthy phosphate, not less important, is the *Phosphate of Magnesia*, which it is well known enters in a still larger proportion than the *phosphate of lime* into the composition of the grain.

The *Alkaline Phosphates*, although not originally found in nature, are important elements of the seeds of grain, of peas, beans, &c. A rational farmer must provide them in sufficient quantities to those plants which require them for their development, from knowing that human excrements increase the produce of grain in a far greater proportion, because they contain alkaline phosphates, than the animal excrements, in which they do not exist.

The *Alkalies*—potash and soda—must be constituents of every rationally composed manure, because by them the original fertile condition of the fields is preserved. A soil which contains the *alkalies* in too small a quantity is, perhaps, fertile for grain; but is

not necessarily so for turnips or potatoes, which require a great quantity of alkali. By supplying an alkaline manure, fallows or the cultivation of those plants which are grown during the time of fallowing, become less necessary.

Sulphate of Potash is a constituent of all plants, although in small quantity, as well as *common salt* and *chloride of potassium*, which are found in milk in rather a large proportion. The *salts of lime*, especially *gypsum*, are important nourishment for the leguminous plants. *Silica* is never wanting in all sorts of soils—it is a constituent of all rocks, by the decomposition of which all productive soils are formed, and the *Cerealia* find it everywhere in sufficient quantity, and in a form capable of being taken up by the plants, if the *alkalies* are provided wherever they are present in too small quantity.

Salts of Ammonia.—It may be regarded as certain that the nitrogen of the plants is derived either from the ammonia of the atmosphere, or from the manure which is provided in the shape of animal fluid and solid excrements, and that nitrogenous compounds exercise an effect on the growth of plants only in so far as they give up their nitrogen in the form of ammonia during their decomposition and decay. We may, therefore, profitably replace all the nitrogenous substances with compounds of ammonia.

Decaying vegetable matters, which contain carbon, are useful to the fields in so far as they provide a source of carbonic acid; but they are quite dispensable in manure, if it be rationally combined, as the atmospheric air is an inexhaustible source of carbonic acid, from which the plants derive their carbon, i. e., if in the manure, the mineral substances are provided which are necessary for the assimilation of the carbonic acid. These are the substances which together give fertility to the soil; but, although each of them may, under certain circumstances—viz., where the soil is defective, or where it is not indifferent to the plant to take up one instead of the other, as, for instance, may be the case with soda instead of potash—increase the fertility, no one of them can be regarded as manure, according to the common meaning of the word, for the simple reason that only *all of them, in certain proportions*, will fulfil the purpose for which the common manure is applied. This purpose is the restoration or an increase of the original fertility, and by manure we must replace all the constituents of the plants which have been taken away in the harvest, or which are contained in the plants which we are desirous to cultivate.

What, then, are the constituents of the soil which we remove by the straw, seeds, tuberculous roots, stalks, &c., of our plants of culture? It is obvious that we must know these first, in order to restore them in sufficient quantities. To this we answer, by giving the analysis of the ashes of plants and their seeds. Hundred weights of the ashes of the following plants contains—

CONSTITUENTS.	Straw of				Ashes of
	Beans.	Peas.	Potatoes.	Clover.	Hay.
Alkaline Carbonates	22.38	12.43	4.34	31.63	3.0
Carbonate of Lime	39.50	47.81	43.68	41.61	6.9
Phosphate of Lime	6.43	5.15	5.73	1.180	40.8
Phosphate of Magnesia	6.66	4.37	7.82	0.91	
Sulphate of Potash or Soda . . .	12.40	10.15		2.23	8.84
Magnesia					21.8
Chloride of Sodium or Potassium	0.28	4.63	2.8	2.27	3.06
Phosphate of Iron					
Phosphate of Alumina, &c. . . }					1.27

In these analyses silica has not been taken into account, as it is found in all soils, and need not be supplied. One hundred weight of the ashes of

potatoes, and the seeds of the following plants, contain—

CONSTITUENTS.	Potatoes.	Wheat.	Beans (<i>Vicia faba</i>)
Alkaline Phosphates	15-75	52-98	68-59
Phosphate of Lime and Magnesia	9-00	38-02	28-46
Phosphate of Iron	0-20	0-67	
Sulphate of Potash	15-07		1-84
Carb. of Potash and Soda	51-70		

What is wanting in the 100 of the above analyses is sand, coal, or loss. From these researches it appears that for stalks and leaves we require other elements than for seeds. The former contain no alkaline phosphates, but they require for their development and growth a rich supply of alkaline carbonates and sulphates. On the other hand the carbonates are entirely wanting in the seeds, which, however, are very rich in phosphates. It is sufficiently obvious that a rational farmer must supply both, as well as all the others. If he supply only phosphates, and do not restore the alkaline carbonates, his soil will become gradually barren—it will be exhausted in those necessary elements for the development of stalks and seeds, without which no formation of seed can be expected. If he supply the alkalies, lime, and sulphates alone, in a given time he will get no more grain. All constituents of the manure, if they are supplied *alone*, have this great defect, that by them the soil is impoverished in other equally important substances. No *one* of itself can maintain the fertility. Keeping this in view, we may easily judge of the comparative value of artificial and natural ma-

nures, and all the various *areana* which have been praised as *panaceas* for exhausted soils.

It is not less easy to understand why the farmers have such different opinions on the relative value of the constituents of manures—why one, whose farm is rich in phosphates, produces an uncommon fertility by the application of nitrate of soda, or the supply of alkalies, while another does not see any favorable effect at all; why bones—phosphates of lime—produce in many fields wonders, and are not of the slightest benefit to others, which are deficient in alkalies or alkaline salts. From the composition of animal manures, it results with certainty, that by applying the latter—solid and fluid excrements of men and animals—we supply to the soil not one but all the elements which have been taken away in the harvest. Fertility is perfectly restored to the field by a correspondingly supply of this manure and it may be increased by it to a certain limit. This will be the more intelligible, if we compare the mineral elements of the urine of horses and cattle with the mineral elements of herbs, straw, roots, &c., of our cultivated plants. It will be found that in their quality they are perfectly identical.

CONSTITUENTS.	Urine of a Horse	Of another.	Of Oxen.
Carbonate of Lime	12-50	31-00	1-07
Do. of Magnesia	9-46	13-07	6-93
Do. of Potash	46-09	40-33	77-28
Do. of Soda	10-33		
Sulphate of Potash	13-34	9-02	13-30
Chloride of Sodium	0-55		0-30

These salts in the urine of horses amount to nearly 4 per cent.; in that of oxen to $2\frac{1}{4}$ per cent. of their weights. If we compare the composition of these different sorts of urine with the composition of the straw of peas, beans, and potatoes, of clover and hay, it will at once be obvious that in stable dung we replace by the urine the alkaline carbonates which we have removed in harvest. What in this urine is wanting in phosphates and carbonate of lime and phosphate of magnesia, forms the principal constituents of the solid excrements of animals; *both together*—solid excrements and urine—restore to the field its original composition, and thus a new generation of cultivated plants meet with the mineral ingredients necessary for their development. If we farther compare the guano and the feces of men with the composition of the animal urine, the analysis shows that both are entirely defective in *alkaline carbonates*—they contain phosphates and sulphates as well as chloride of sodium, but no free alkali—they contain phosphate of lime and phosphate of magnesia; in short, their elements are in *quality* identical with the important mineral elements of the seeds of wheat, peas, beans. The urine of swine is in its composition intermediate between the urine of man and horses.

ANALYSIS OF THE URINE OF SWINE.

Carbonate of Potash	12-1	The solid excrements of swine contain principally phosphate of lime.
Phosphate of Soda	19-0	
Sulphate of Soda	7-0	
Chloride of Sodium	53-1	
Do. of Potassium	8-8	
Phosphate of Lime		
Do. of Magnesia		
Traces of Iron		

What the practical results of a knowledge of composition of these manures are, is clear. If it were possible to provide our fields with the dung of swine in sufficient quantity, we would replace by it, in a soil which contains *silica* and *lime*, all the remaining elements of the plants—the field might be made fertile for all kinds of plants—we have in it not only alkaline phosphates, the principal elements of the seeds, but also alkaline carbonates, which are required by the leaves, stalks and roots. This purpose cannot be attained, however, by manuring with guano or human excrements alone, but perfectly so by stable manure, from its containing alkaline carbonates. If I have said that stable manure contains the mineral elements of the nurture of the plants, *exactly* in a state and condition in which they are furnished by Nature—that a field manured by it resembles the

primitive state of America and Hungary, this assertion will not be found exaggerated. It is certain that stable dung contains no alkaline phosphates, but Nature does not furnish these to the plants even in the most fertile soil, although we find them in large quantity in all the seeds of wild plants. It is obvious that, notwithstanding their absence from the soil, the phosphates are formed in the organism of the plants, and they are produced from the phosphate of lime and magnesia and the supplied alkalies, by an exchange of the elements of each. The alkalies are necessary for forming *alkaline phosphates*, which cannot originate in the phosphate of lime alone. Both together are present in stable dung. In human excrements and in guano, the alkaline carbonates are entirely wanting. The practice of the farmer, in some places, of supplying to the field pure guano, but a mixture of it with gypsum, shows clearly that the phosphates of alkaline bases are really formed on the organism of the plants from the phosphate of lime and magnesia, because this mixture (guano and gypsum) contains less phosphate of potash or soda than the guano itself; or, in certain proportions of gypsum, no alkaline phosphates at all; the soluble phosphates in the guano decomposing the gypsum into phosphate of lime and magnesia, and into sulphate of potash. I am far from asserting that we should not provide the fields with alkaline phosphates; the excellent effect of the guano and of the human excrements is too well known to question it, and we perceive from this fact that plants are in this respect like domestic animals, which, with a normal food, are healthy and strong, but do not fatten. On the contrary, we know that if we prepare the food of these animals artificially, so as to render it more easily digested and assimilated, they are enabled to consume, in a given time, a greater quantity of it, by which all their parts increase in weight. The same happens with plants: if we give them their nourishment in a state most appropriate for assimilation, their capability to attract the gaseous elements from the atmosphere increases and their development is accelerated. If we recollect that the favorable effect of guano upon our fields depends on its amount of *ammoniacal salts*, of *alkaline phosphates* and the other *mineral constituents* of the seeds, but that it is deficient in *alkalies*, the principal constituents of the *herbs, straw and roots*, it is easily understood why the opinions of farmers on the value of guano as a manure are so very different. On a soil which is defective in alkalies its effect is small; on a soil rich in them it increases the produce in a remarkable degree; but, as I have already observed, the continued application of guano must gradually diminish the fertility of our fields for a number of plants, because the elements of those organs, of the leaves, stalks, roots, &c., without which the plants cannot be developed and cannot produce seeds, are taken off in the harvest without any restoration of them. I think it, therefore, certain that the stable dung can replace the guano to a certain degree, but not *vice versa*. A rational agriculturist, in using guano, cannot dispense with stable dung.

During my excursions in England, I have repeatedly directed the attention of the agriculturists, as Messrs. Pusey and Miles will, perhaps, recollect, to the necessity of supplying the alkalies, and not merely the phosphates and other salts; by a partial supply the equilibrium of fertility is not restored, and if we supply guano alone, we do not act wisely, because we consume our capital by rich interests, and leave to our children an exhausted soil.

And now the principles above-mentioned must guide us in the manufacture of an artificial manure. If they are neglected—if the artificial manure is defective in one or two of the necessary ingredients—the farmer, in making use of it, will, in a very short time, discover the fact by the injury he will have sustained.

In the manufacture of an artificial manure, it must be kept in view that the application of stable dung, of human excrements, and of guano, is attended with a great loss, in consequence of the too great solubility of their most efficacious constituents; and this must be prevented by artificial means. This is evident, if we remember those countries whence guano is derived. It is known that the collection and preservation of the excrements on the African islands, and the coasts of Peru and Chili, depend upon the scarcity of rain in those countries. The best sorts of guano contain, in fact, more than one-half of their weight of soluble salts, which, if exposed to the rain, are in exactly the same condition as, under similar conditions, a heap of salt. They dissolve in water, and are removed. Some months of rain would deprive those countries of all their riches. The remainder would have lost the greater part of its fertilizing power. Such effects, however, take place upon the guano with which our fields are manured. Only a small portion of its efficacious salts produce the beneficial effect they are capable of doing, the greater part being carried off by the rain. The stable dung is, in this respect, in the same condition as guano; indeed, its principal compounds are already in a dissolved state, and, therefore, are carried off more easily than those of guano.

A covering for those places in which stable dung is preserved, in order to shelter it from the effects of the rain, has been regarded in Germany as essential for preserving its manuring power. In consequence of the experience that the soluble elements of stable dung are the most efficacious, it has, in some cases, been drawn out with water, and it has been found advantageous to carry *only this fluid* to the fields. I need only refer to the foregoing analyses of the urine of animals, in order to see upon which elements of it this effect depends.

The reason why, in certain years, the influence of the best and most plentiful manuring is scarcely perceptible, is that during the moist and rainy springs and summers the *phosphates and other salts with alkaline bases*, as also the *soluble ammoniacal salts*, are entirely or partly removed. A great amount of rain and moisture removes, in the greatest quantity, the very substances which are most indispensable to the plants at the time that they begin to form and mature seeds. The system of draining, which of late has been so extensively followed in England, brings the land into the state of a great filter, through which the soluble alkalies are *driven off* in consequence of the percolation of rain, and it must, therefore, become more deficient in its *soluble efficacious elements*.

Attentive farmers must have observed that after a certain time the quality of the grain on land laid dry according to this principle, deteriorates; that the produce of grain bears no due proportion to the produce of straw.

What is more evident, after these remarks, than that intelligent farmers must strive to give to the soil the manuring substances in such a state as to render possible their acting favorably on the plants during the whole time of their growth? Art must find out the means of reducing the solubility of the manuring substances to a certain limit—in a word,

of bringing them into the same state in which they exist in a most fertile virgin soil, and in which they can be best assimilated by the virgin plants.

The attention which I have paid to this subject has been crowned with success. I have succeeded in combining the efficacious elements of manure in such a manner as that they will not be washed away, and thus their efficacy will be doubled. Owing to this, the injurious consequences of the present system of draining are removed; Agriculture is placed upon as certain principles as well-arranged manufactories; and instead of the uncertainty of mere empiricism, the operations of Agriculture may be carried on with security, and in place of waiting the results of our labors with anxiety and doubt, our minds will be filled with patience and confidence.

(Signed) DR. JUSTUS LIEBIG.
Giessen University, 1845.

THE AMERICAN FARMER.

Is published the 1st of every month, at \$1 per annum, or 6 copies for \$5, by SAMUEL SANDS,
2 Jarvis' Building, North-st., Baltimore, Md.

The *Report of Montgomery County Agricultural Society*, which will be found in another column, is a paper full of interest, and is admirably drawn up. It discusses two subjects of great moment to the welfare of husbandmen—the improvement of poor lands, and the rotation of crops, with ability, and it is but doing sheer justice to the author to remark, that his facts and premises are as well grounded as his reasoning and deductions are just and conclusive. The instances of improvement in the condition of impoverished land in Montgomery County, which he adduces, should encourage farmers every where, whose lands may have been exhausted by improvident culture, to arm themselves with that hope and that resolution which overcomes every obstacle. What has been done in Montgomery, may be done elsewhere. It is obvious to us, that by care and the proper husbanding and application of manure, all lands which were once good may be restored, and we hesitate not in saying, that duty, as well as interest, should dictate to their owners, to labor on until they are restored.

THE WESTERN CONTINENT.—We call attention to the prospectus of this excellent Southern Journal, published on another page.—It is one of the best family papers issued; is of a high moral character, and may with all confidence be admitted into every family.—Mr. Thompson, the talented editor, is aided in his labors, by able writers—and has appropriated a portion of each number especially to the ladies, which is under the particular charge of Kate Harchell, who does full justice to the high and responsible duties assigned her.—A humorous department is also established under the care of the veritable Maj. Joseph Jones, of Pineville. The *Continent* is worthy of an extended patronage, and we hope will not fail to receive a largely increased subscription for the volume now just commenced.

BOMMER'S METHOD OF MAKING MANURE.—We would refer our readers to the advertisement of Mr. G. D. Comstock, on our advertising pages,—Mr. C. is authorized by Mr. Bommer to dispose of rights to the use of his method in this State,—and as he will visit several counties for the purpose, we have authorized him at the same time to receive subscriptions to the "*American Farmer*," his receipt for which will be acknowledged by us.

"PATUXENT FARMER."—The communication of this writer, which graces our present number, will attract attention as much by the matter which it contains as by the admirable manner in which he treats every subject which he discusses—a manner which, combining common sense with wit, and seasoning the power of argument with playfulness of thought and propriety of diction, cannot fail to make every one who may take it up a willing and delighted as well as instructed reader.

The fact which he states, and which is doubtless justified by his experience and observation—that the good effects of Plaster, after being applied for a series of years, ceases to be visible, is easily accounted for. Plaster, like any thing else in the form of manure, can only perform its specific office. The plants of the field require a diversity of food, and by the laws of Nature, are invested with the power of taking up such portions of each as may be essential to their healthful growth. When any of these substances may not be present in the soil, a decreased luxuriance and diminished product is the natural result; but though the food of plants do consist of many ingredients, there is such a thing as supplying too much of any one of them, however good and necessary that one may be when given in its proper proportion. Hence it is but reasonable to presume, that even too much plaster may be given to land. At an early period in the use of plaster in England, it was found that although it acted like a charm in duplicating the products of the soils in some localities, it was found wholly inert in others. But there the analyses of the chemist came in to the relief of the experimenters, and solved the mystery:—for we are told by Sir Humphrey Davy, that by analysing the soils in many places where plaster had failed to act beneficially, it was found that those soils already contained that mineral in very sensible quantities, and, therefore, that that which had been artificially applied was in excess, not being required by the previous condition of such soils. *Wheat*, we know, requires fertile soil to produce it well—requires soil in which there are appreciable portions of vegetable remains—one of the main bases of nitrogen or ammonia. We know that without the presence of these things in the soil, a crop of wheat cannot be raised, and yet experience tells us, that strong nutrient manures cannot, in large quantities, be safely applied directly to the wheat crop, but that the safety consists

in its application to a preceding fallow crop. In England, beans or roots always precede wheat; as the preparative crop *here*, corn, the great crop of our country, takes precedence.

We agree with our very able correspondent, that the broad leaf plants derive the most benefit from applications of plaster. It is reasonable that they should, as all such plants, from the very conformation and volume of their leaves, have an advantage *not* possessed by the narrow leaved tribe of plants—that of feeding as well by their leaves as by their roots and spongioles—and hence, as one of the *offices* performed by plaster is that of attracting to the earth the nitrogen or ammonia which may be floating in the atmosphere, it is natural that the mouths of the leaves of the broad leaved family, as corn, clover, tobacco, buckwheat, &c., should appropriate to themselves portions of this gaseous food in its descent to the earth; whereas, the narrow leaved ones have to await the more tardy process, consequent upon the powers of attraction, condensation, and percolation. Although Plaster attracts as much *atmospheric nutriment*, when spread over the *narrow*, as it does when spread over the *broad leaved* families of plants, yet its agency ceases, in this particular, when it brings that nutriment to the surface of the earth; while the former has to wait for its supply until a rain shall come to convey the attracted food into the soil, the latter has already been invigorated by the portion which they appropriated to themselves while the aerial food was descending to the earth. If this were not the *modus operandi*, the minute quantities of plaster which are applied could not exert the important influence which they do, as the portions of lime and sulphuric acid, which are contained in a bushel of plaster, are entirely too inconsiderable, of themselves, to operate to the beneficial extent which they do. To the *affinity* existing between plaster and the nitrogen of the air, we ascribe its potency of action, and regard the atmosphere as the great store-house whence it derives the food which it dispenses to the plants of the field.

The conclusion at which we arrive by the force of our premises, is this—that *Plaster* may be beneficially applied to all crops, whether broad or narrow leaved, wherever that *mineral* may not already, in sufficient quantities, be present in the soils in which such crops may be grown—and for the reasons we have assigned, that the benefit will be more to the former than to the latter class of plants.

Our correspondent is right in his conjecture, that we had “a nice time” and “lots of fine things at the Talbot county Cattle Show,” as he may very readily imagine, knowing that we were with Eastern Shoremen, a people universally acknowledged to be among the most hospitable of our land, not even excepting those of Prince George’s, who are, if not to the “manner born,” taught from their cradles to hold the laws of hospitality as irrevocable as were those of the Medes and Persians.

We accept the invitation of our kind friend to attend the next annual CATTLE SHOW AND FAIR of Prince George’s county. In doing so, we shall be moved by the three-fold motive of gratifying the natural impulses of our heart, of manifesting our grateful appreciation of the kind spirit which prompted the invitation, so courteously tendered, and of discharging an editorial duty. But flattered as we are by this extension of the hospitality of Old Prince George towards us, by one of her most gifted sons, we must be permitted to decline disclosing the “secrets of the prison house,” as it would be discourteous to speak of the “*fluids*” which we “*tasted*” while enjoying the hospitality of the generous sons of Talbot; and we are sure that our motive for silence will suffice, when we say, that no guest ever left their board without realizing those emotions which spring from the consciousness, of having been entertained by those, who, not only believe in, but practice that philosophy which teaches us to look upon the elegancies of life as being among the elements of social happiness.

THE POTATO ROT.—The papers on this subject, published in our last, have elicited much attention, and we flatter ourselves that the results of last year’s observation and experience, will tend much to the enlightenment of the public mind as to the causes of the blight of this valuable esculent. In our pages for this month, will be found a communication upon the subject, from the pen of Dr. J. B. Owens, of Anne Arundel county, of this State, detailing his mode of culture, and the results thereof.

Mr. Wm. Jessup, of Baltimore county, informs us, that he coincides with the members of the N. Y. Society, noticed by “Z.” in our last, that lime is a preventive of the rot. He says, for the two last seasons he has placed in each hill a handful of a compost made of the refuse of the lime kiln, plaster and ashes, and that his late, as well as early potatoes have been saved from injury by the rot—he attributes their preservation to the lime, and thinks the ashes and plaster aided in their growth—Mr. J. supposes that the value of lime consists in the placing it in the hill, instead of being sown broadcast as is usual. He uses the same compost on his corn with admirable effect.

We publish in the present number of our journal the 2d part of Professor Liebig’s admirable remarks “on the principles of Artificial Manuring,”—and while we commend them to the attentive perusal of our readers, we would be permitted to accompany them with a few passing observations. The Professor says—

“Guano, that powerful manure, the efficacy of which, in a judicious application, has been clearly demonstrated by the testimony of the most intelligent farmers, cannot be supplied for a much longer period, because the rich stores in Chili and Africa must be shortly exhausted.”

To the conclusion at which the Professor arrives, that the supply of guano must be “shortly exhausted,” in the present state of our information we feel justified in dissenting, as we have understood from sources which we deem reliable, that the supply of

Peruvian Guano is almost *inexhaustible*. From the same sources whence England and America derive their supplies, the Peruvians have been drawing theirs for centuries, and though large quantities are annually abstracted, the *birds*, by whom the deposit was formed, are as industriously as ever contributing their notable labors, from day to day, in keeping up the supply.

We are gratified to learn that the distinguished Professor is certain that he can compound a manure containing all the elements of Guano, and which will answer in its stead, because his success in that respect, when his chemical preparation shall have borne the test of fair experiments, will possibly depress the price of guano; but we think that he might be content to manufacture his artificial substitute without attempting to create an *artificial* scarcity of the genuine article.

We notice with much pleasure that Mr. Brady, of Baltimore county, has introduced a bill into the H. of Delegates, of this State, to establish an Agricultural and Chemical School for the benefit of the State, to be centrally located, and to be under the jurisdiction of the State.

Mr. Keyser, of this city, has presented to the Senate of Md. the petition of sundry citizens of Baltimore, dealers in guano, asking the repeal of the law requiring the inspection of that article—which was referred to the Committee on Agriculture.—We know not the ground taken by the dealers in their petition for the repeal of the law, but we are fully satisfied that Mr. Nail, the chairman of the Committee to whom it has been referred, will not fail to see that the interests of the Agricultural community are not overlooked in the matter. The law was enacted for *their* safety; and although we must acknowledge that we had doubts at the time of its necessity, yet the experience of the past year may have proved the benefits thereof, or its want of utility. The *farmers*, however, have had to pay the *tax* on the inspection, and we would urge upon *them* to lose no time in making the Agricultural Committee of the Senate acquainted with their views and wishes in the premises.

HORTICULTURAL.

WORK IN THE GARDEN FOR FEBRUARY.

There is not much to be done in open culture in the garden, except in latitudes south of us, but still as something may be done, however little, we will point it out, in order that that *little* may not remain undone because of our negligence to call attention to it. In *gardens* provided with hot-beds,—as all gardens should be,—much may be done this month, as the groundwork may be laid, in such conveniences, for the production of early vegetables of almost every kind. We have said that every garden

should have its hot-beds, and surely no one will gainsay our assertion, when we tell him that a hot-bed, which would last for years, could be made for two or three dollars that would be big enough to supply a family of twenty or thirty persons with plants to grow a dozen kinds of vegetables. The plan of forming such a hot-bed, we gave in our last number, and to which we beg leave to refer our *lady readers*, and at the same time to ask them, to *insist* upon their liege lords providing them with at least one of these necessary appendages to every garden. With a hot bed, *three feet by twelve*, plants may be grown that will ensure a supply of early cabbages, lettuce, cucumbers, melons, cymblins, radishes, spinach, beans, beets, parsnips, carrots, tomatoes, egg plants, &c. that would be fully six weeks earlier than any which could be grown in open culture; and surely no man, with his heart in the right place, would hesitate a moment, as to what was his duty, when, for so inconsiderable a sum, he can secure to his family comforts and necessities so essential and healthful.

But as we may not be gratified in our desire to see plants raised in hot-beds, we will designate what may be done in open culture.

Sowing Celery Seed.—Select a place on a warm border, facing the South, manure it freely with stable manure, then dig the manure in a spade in depth, rake until every clod is reduced to a fine tilth, then put on an *inch of rotten dung*, rake that in, then sow your celery seed, rake it in lightly, and finish by patting the earth down on the seed with the back of a spade or shovel. A very few feet of such a border, will give you plants enough to supply your family with early celery.

Sowing Radish Seed.—Towards the latter part of this month prepare a part of a warm border, as directed for Celery, and sow radish seed, as the early frame, short top and salmon.

Spinach.—The prickly-seeded spinach may be grown as directed for celery, if sown the latter part of the month, or so soon as the frost shall be out of the ground of the border.

Lettuce.—This vegetable may also be similarly grown.

Early Peas.—Prepare a dry and well situated plot of ground in your garden, by manuring, digging, and raking, and sow early peas. This is a hardy vegetable, and will stand a good deal of frosty weather; therefore, you may plant as soon as the frost is out of the ground and it can be put in good order, say about the latter part of the month. We have had them withstand a heavy snow.

Parsley Seed.—This may be sown any time this month when the border can be prepared for its reception.

Gooseberries, Raspberries, Currants, and Grape vines, should be pruned this month, the sooner the last named is pruned the better. The cuttings from the *Gooseberries* and *Currants* may be planted out at any time when the frost is out of the ground.

In lower Virginia, the Carolinas, Georgia, and farther South, it is competent during this month to carry on almost any of the operations of the garden, in open culture.

THE HOMESTEAD AND THE GARDEN.

It is not sufficient that a farmer or planter should be attentive to the cultivation of his fields—that he should provide for them ample supplies of manure, see that his ploughing, his harrowing, and his rolling is well done, and his crops are properly tended. He may have done all these things, and success may have crowned his efforts to fertilize his arable lands, increase the quantity and quality of his crops, and add to his pecuniary wealth—still, if he shall have omitted to adorn his dwelling with shade trees and shrubbery, and provide a good garden for his household comfort and convenience, he will have failed in the full discharge of his duty. A house in the country without trees and shrubbery, to relieve the eye and ensure protection, is among the most cheerless sights which can be presented to human vision, and never fails to impress the stranger with an unfavorable opinion of its owner, with regard to those enjoyments of sense which so essentially enter into, and are commingled with, the outward sources of the happiness of one's family. Well convinced are we, that appointments of the kind around one's home, besides endearing that home to its possessor, by all the ties of self esteem, give him additional claims to the love of his family, and ensures the respect of all; as while it proves that his heart has not been indifferent to domestic sympathies, nor turned a deaf ear to the obligations of duty at home, it is also evincive of that respect for public opinion, which the virtuous and good ever cherish, and whose possession and display, so commend one to the kindly regards of his fellow men.

Independently, however, of these considerations, which, of themselves, should exert potential influence upon all well regulated minds, and find a response in every generous heart,—as a mere matter of profit, the garden, when judiciously managed, may be made the most profitable part of a farmer's estate; for besides furnishing daily supplies of vegetables for his table, it may be a source of no inconsiderable emolument, through its surplus products, disposed of at market,—or if, perchance, he is too remotely situated to avail himself of that advantage, its offal and surplus produce, will enable him the better to feed his stock, and thus find remuneration for the labor bestowed in its culture.

When we speak of the garden, we would not be considered as looking to it solely for its edibles—for its man comforts—for although we would have its appointments, in that respect, to embrace all the vegetable tribes that have been converted to culinary uses, yet our views go farther, and embrace a wider field than these. We would have its borders adorned with shrubbery and flowers of every tint and

hue, from the *Rose*, the queen of all, the *Dahlia*, the gorgeous favorite, the *Lilly of the valley*, immortalized in holy song, to the tiniest blossom that challenges admiration, or warms into being gratitude for the mighty works of the Creator. A garden with such adornments, is grateful to the matronly pride of our wives, and awakes kindred emotions in the minds of our daughters; and, unless he be insensible to those beauties which Providence has so munificently bestowed, to sweeten the thorny paths of life, it must make the husband and the father, not only better contented with his home, but fill him with love for all around him, as the gratification of the rational appetites of those whom we cherish in the warmth of our affection, should ever, and must be, foremost in our thoughts. Everything connected with rural life—all its associations—all its duties—would imply, that, besides rendering such a home tributary to our wants, it should be so improved, that its embellishments should tell that it was the abode of refinement—and that its in-dwellers were equally alive to the elegancies, as to the necessities of life. Never in our travels through the country, have we seen the woodbine or the honeysuckle, twining around the porch of the farm-house—and its small court filled with shrubbery—without indulging, without knowing them, profound respect for its inmates—and sometimes, when such attention to the external appearances have been so isolated as almost to partake of the character of *Oases* in the desert, we have felt our heart yearning to become the familiar of the occupants, that we might offer up our poor thanks to them, and thus bear a pleasing, though humble testimonial of the acceptable service they had performed, in relieving the eye of the traveller from the dull monotony of cheerless homes, of quickening into freshness those feelings, which spring from a high appreciation of the merits of those who may be the subjects of our thoughts, whose taste had challenged our admiration and won our esteem.

CULTURE OF ORCHARDS.

We extract the following from an article in the *Massachusetts Ploughman*:

"We are pleased that many farmers are aware that one apple-tree in *tilled land*, or in a *hog-yard*, is worth a half a dozen standing in an unbroken sward land."

Brief as is the above paragraph, it conveys a truth that cannot be too highly appreciated by every owner of an orchard, as nothing is more consonant with common sense than the fact, that the ground on which an orchard is located, should be *tilled* and *manured* every few years. When we say tilled, we don't mean to convey the idea, that it should be set in grass, as we believe that would encourage the growth of insects, and serve as nests for vermin, to prey upon both trees and fruit, but that it should be occasionally cultivated in corn, or in potatoes, turnips, and other roots, requiring row culture, and

generous manuring. By such tillage, we think that a very striking improvement in the health of the trees, and beauty and perfection of the fruit, may be brought about. To us it appears obvious, that fruit bearing trees stand just as much in need of periodical manuring, as do the grain fields. Every succeeding crop of fruit abstracts its portion of nutritive and mineral manures from the soil of the orchard, and leaves it so much the poorer, and it cannot be expected that the fruit will either continue to be as abundant, or as fair as it originally was, unless that of which the soil has been deprived, is again restored to it in the shape of manure, as life in neither animals nor vegetables can be supported in its integrity without food.

May not the neglect of orchards be one cause of the decay of the trees, and the deterioration in the quality of the fruit? This question is worthy of the serious consideration of every owner of an orchard—of every lover of good fruit.

WHAT IS THE BEST MANURE FOR SANDY LAND?

Without pretending to say "*what is the best manure for sandy land*," we will content ourselves with observing, that if we had our choice between 20 double-horse-cart loads of stable manure, and 10 loads of virgin clay and 10 loads of stable manure, which had been well mixed together, we should prefer the latter compost. The clay portion besides acting as an amender of the texture of the soil, thereby partially imparting to it the capacity to hold manure and retain moisture, two most desirable qualities, would in all probability, add to it no inconsiderable portion of *potash*, a substance proved to form one of the constituents of most clays, and whose agency in the formation of the *silicate of potash*, is essential in all soils, as the outer crust of all grasses and grains cannot be constituted well without it. The flint-like substance apparent upon the face of the corn-stalk, and on the straw of the small grains, is thus constituted. Without, therefore, potash be present in the soil, to dissolve silica, combine with it, and form the essential compound named above, it would be fallacious to expect the grains enumerated above, to stand erect and perform their respective offices of bearing fruit. So far as the formation of this *silicate of potash* may be concerned, an application of *unleached ashes* would answer, as the *potash* contained therein would very efficiently operate to produce the same desirable effect; but as full supplies of ashes can only be obtained in the immediate neighborhoods of large cities, the substitution of virgin clay for them may well become a matter of grave consideration.

We do not pretend to affirm, that ten loads of such clay as we have mentioned, would be an ample dose to bring about a permanent amendment of an acre of sandy soil; neither do we affirm that such quantity would yield a sufficiency of potash, because we do not subscribe to either one or the other of these opin-

ions, and only desire to urge our preference for it as an alternative choice. To give the proper consistence and tenacity to sandy soils, would require many repetitions of the dose of clay we have prescribed, which quantity has been named by us, from the desire we feel not to impose a too onerous labor upon our agricultural brethren at any one time, preferring that their works of melioration should be performed by gradual stages, and thus relieved of the objection of too much labor, which is so often urged with the show of plausibility.

Those who manure as they ought, usually apply 20 loads of stable or barn-yard manure to the acre, and surely, if they can substitute 10 loads of clay, for so many of manure, with equal, if not more, benefit to their land—and we have no doubt of the fact—self interest, that great momentum in all human actions, would indicate that they should do so.—That they would experience benefit in the first crop, we do not entertain the slightest doubt, and as little, that the degree of benefit would induce them to repeat the dose of clay each succeeding year, until their sandy soil had been converted into a sandy loam, and had had imparted to it the mechanical capacity of holding manure, retaining moisture, and of performing every function belonging to a fertile soil—and we need not add, that once placed in that condition, it would be an easy matter to continue it by a judicious rotation of crops and the use of mineral manures, as lime and plaster and their adjunct clover. Indeed, if it were not that we do not wish to alarm our friend, by asking too much of him, we would say, that he should spread, annually, over his field of sandy land, while it may be undergoing the process of being manured and clayed, at least 20 bushels of lime, until he shall have reached our maximum quantity, of 100 bushels to the acre; the lime, of course, to be spread on the surface after the clay and manure compost had been ploughed in.

Where a sandy surface soil may rest upon a *hard pan* or clay subsoil, the labor of *hauling* may be saved, by ploughing deep, and then cross ploughing so as to mix the two different soils together. This done let the field be thoroughly harrowed and cross-harrowed, then put on the manure, plough it in and harrow; then spread on from 25 to 30 bushels of lime. We are cognizant of a field of exhausted sandy land which has been restored to fertility in this way, without the least injury resulting from turning up the so much dreaded subsoil. The operation was performed in the fall, the field was planted in corn the succeeding spring, yielded well, was seeded in wheat the ensuing autumn, gave a fair product, had clover seeded on the wheat, which produced a good crop of grass, and by judicious management since, the fertility of the soil has been continued.

"A LEARNER" informs us that unavoidable circumstances have prevented him from preparing his communication promised in our last—It will certainly be ready for our next No.

ESSENTIALS TO PRODUCTIVE FARMING.

1. Good implements of husbandry, and plenty of them, which should always be kept in perfect order.
2. *Deep Ploughing*, and *thorough pulverization* of the soil, by the free use of the harrow, drag, and roller.
3. An application of *lime, marl*, or *ashes*, where calcareous matter or potash may not be present in the soil. In applying lime to land, if there be much vegetable matter therein, 100 bushels may be applied at once, though we should prefer giving it at four different doses, so that a portion thereof should be always near the surface, thus providing, by the means of its application, against its sinking, owing to its specific gravity, beyond the ordinary reach of the roots of many plants. Where land may be thin, and but sparsely provided with vegetable remains, 20, 25 or 30 bushels of lime, per acre, would be enough. The quantity of *marl* should be regulated also, by the condition of the land, and made to conform thereto; but to act advisedly, it would be best to cause the marl to be analysed, in order to ascertain the relative proportion of calcareous matter, which it might contain, and then, so to apportion it, as that the soil should only receive such a quantity as would yield to such land as was rich in vegetable matter, 100 bushels per acre of the carbonate of lime, and a similar quantity as above prescribed of lime to that which was but indifferently provided with such remains. Where an analysis is not practicable, from 200 to 400 bushels of *marl* would be a safe application, either quantity to be regulated by the condition of the soil, whether exhausted or otherwise. Of *ashes* from 50 to 100 bushels, if *leached*, to land in good heart, per acre, while from 25 to 50 would better suit, if the ashes should be *unleached*—and half the quantity of either, to such lands as had been exhausted by severe and improvident cropping.
4. A systematic husbanding of every substance on a farm capable of being converted into manure, as systematic a protection of such substances from loss by evaporation or waste of any kinds and a careful application of the same to the lands in culture.
5. The draining of all wet lands, so as to relieve the roots of the plants from the ill effects of a superabundance of water, a condition equally pernicious as drought, to their healthful growth and profitable fructification.
6. The free use of the plough, cultivator and hoe, with all *row-cultured crops*, so as to keep down, at all times, the growth of grass and weeds, those pests which prove so destructive to crops.
7. Seeding at the *proper time*, with *good seed*, and an equal attention as to *time*, with regard to the *period* of working crops.
8. Attention to the construction and repair of fences, so that what is made through the toils and anxious cares of the husbandman, may not be lost through his neglect to protect his crops from the depredations of stock.
9. Daily *personal superintendence*, on the part of the master, over all the operations of the farm, no matter how good a manager he may have, or however faithful his hands may be, as the *presence* of the head of a farm, and the use of his eyes, are worth several pairs of hands.
10. Labor-saving machinery, so that one may render himself as independent as needful of neighborhood labor, as a sense of the comparative independence of the employer upon such labor, begets a disposition of obedience and faithfulness on the part of the employed.
11. Comfortable stabling and sheds, for the horses and stock, all necessary outbuildings, for the accommodation of the hands, and protection of the tools and implements, as well as for the care of the poultry.
12. *Clover* and other grasses to form a part of the rotation of crops, and these to be at the proper periods ploughed in, to form pabulum for succeeding crops.
13. The *Clover* field to be either *plastered* or *ashed*, each succeeding spring,—one bushel of the former, and six of the latter, per acre.
14. To keep no more stock than can be *well kept*; but, to be sure to keep as many as the farm can keep in good condition, as it is wise policy to feed as much as possible of the crops grown on the farm, and thus return to it that which has been abstracted from it.
15. To provide a good *orchard* and *garden*—the one to be filled with choice fruits, of all kinds—the other with vegetables of different sorts, early and late, so that the table may, at all times, be well and seasonably supplied, and the surplus contribute to increase the wealth of the proprietor.
16. *The taking of one or more good agricultural papers, not forgetting that as the American Farmer is the oldest, its age entitles it to respect, and particularly so, as its editor not only endeavors to impart to its columns the light of the experience of others, but to maintain it in youthful vigor—and thus make it a safe guide to the farmer and planter.*

REPLY TO "A SUBSCRIBER," of Owings Mills, Baltimore County.—In answer to his several inquiries we have to state:

1st. That he may sow the grass seeds alluded to in our July No., intended to form a permanent pasture, in *spring* as well as fall.

2d. They may be sown by themselves, or upon grain.

3d. If he sows them this spring, his stock should be kept off the grass until next season, as time must always be allowed, in the formation of a permanent pasture, for the roots to become well set, before the ground is depastured.

4th. Twenty five pounds of Plaster will be sufficient to mix with 100 lbs. of Guano. The two should be thoroughly mixed together before being sown. No more of the mixture should be sown in any one day than can be ploughed in.

5th. It is evident, from the representation he gives of his orchard, that the shade of the trees are too dense for *row culture*. We think, however, that he may secure nearly all the advantages of such culture, by forming a compost of, say 25 bushels of lime and 75 bushels of rich mould, or decomposed manure, and spreading the compost broadcast over his orchard, and harrowing it in, taking care that his trees are not injured, through carelessness, in the process. If the labor of harrowing in the manure should prove objectionable, he may dig around each tree, some five or six feet in diameter, and replace the earth excavated with the compost.

6. *Lie* may be substituted for the "*soft soap*" in our mixture for painting fruit trees—but as it has answered so "admirably" and made his trees have so improved an appearance, we think the difference between the cost of the two ingredients, should not be a sufficient inducement for "A Subscriber" to change the one for the other. By the *change*, one of the objects we sought to attain, viz:—consistence,—will be lost.

EFFECTS OF LEAD PIPES.

[From the Germantown Gazette and Advertiser.]

Lead Pipes Poisonous.—Lead Pipes are pretty extensively used in this place, and we fear they will be found to be injurious to health, as has been the case elsewhere. The Editor of the Christian Citizen, who has been unwell during the past summer, ascribes his affliction solely to the use of water pumped from a well through lead pipes. He says:

"With almost every particle of food and drink we have taken into our system for more than a year, we have taken by this means, small particles of one of the worst mineral poisons; and the result has been days and weeks of most intense suffering. In some constitutions this poison does not act for a long time, and upon some no ill effects are observable for years. Yet we think the risk is too great to justify any one who has regard for his health or that of his family, to use water that has been in constant contact with lead. A friend of ours has entirely lost the use of his hands from the same cause, and been unable even to hold a pen for more than five months; and we could cite many similar cases. We trust, however, that a word to the wise will be sufficient."

As many farmers have already had water carried to their dwellings and barn-yards, by means of the *Hydraulic Ram*, and have used *lead* pipes as the medium of conveying the water to them—and as others are, very praise-worthily, following their laudable examples, we deem it due to truth, to say, that we dissent in toto, from the opinions expressed by the Editor of the "*Christian Citizen*," as well as he of the "*Germantown Gazette*;" both of whom, we doubt not, have right honestly formed and expressed their belief. That the carbonic acid contained in all spring and well waters, will, to a certain extent, partially oxidize certain portions of the leaden pipes, we do not question, but the portions thus dissolved are too minute to operate injuriously to health, and we apprehend that such oxidation could only be carried on for a very limited period, when a cessation of the

action of the carbonic acid on the carbonate of lead, would take place. That such is the fact, is proved by the daily experience in all the large cities which are supplied with Hydrant water, where all the pipes which connect with the main pipes, and conduct the water into the yards of the dwellings of the houses, are made of lead. These are occasionally taken up, and invariably found not to have been acted upon as stated in the paragraph above, but remain undiminished in the body of the metal. If such were not the fact, the entire communities of cities thus supplied with water, would be so many nurseries of disease, and yet we find them otherwise, and that to these supplies of water their health and comparative exemption from disease may mainly be ascribed.

Mineral waters charged with *iodine*, would dissolve carbonic of lead, and therefore render leaden pipes unsafe conduits for such waters, but as no one would think of conveying them to his dwelling for culinary and other purposes, it would be a waste of time to consider the subject in connection with domestic supply.

It might be, that some spring waters would be charged with sulphur, which we know would for a time dissolve the carbonate of lead of the pipes, but here an immediate combination would take place, when the sulphate of lead would be formed, which, so soon as the union were effected, would become insoluble, or so nearly so, as to be wholly innocuous, and not in the least to interfere with the health of those who might drink of the waters.

The carbonate of lead, of which pipes are formed, may be dissolved by *strong acids*, and when so acted upon, would prove to be a dangerous medium of conveyance for water or any other fluid body, thus charged, and hence it is, that it would be unsafe to have leaden vessels for the dairy, the which, by coming into immediate contact with the acetic acid of the milk, would, from time to time, dissolve the lead, and form a substance which would exercise an injurious influence over the health of those using the milk kept in such vessels; but so far as leaden pipes may be used to convey ordinary spring or other waters to the farmer's homestead, we maintain that no injurious effects whatever can result therefrom; and can only regret that opinions formed without reflection or knowledge, should so often be thrown out to disturb the public quiet, and impede the march of those improvements, which are so much called for by the comforts, conveniences, and health of a farmer's household, and the condition and wants of his stock.

The communication signed "S." is upon a subject not peculiarly appropriate to our pages—consequently, as we have a great mass of matter pressing upon our space, we beg the writer to excuse us for declining its publication. We should be pleased with a fulfilment of his promise to favor us with something appertaining more immediately to the objects of our journal.

AGRICULTURAL CATALOGUES.—Mr. Wm. Corse, (late Sinclair & Corse,) has recently published a catalogue of fruit and ornamental trees, shrubs and plants, cultivated at the Clairmont Nursery and Seed garden, near this city, in which, besides the prices of the various articles, is contained a variety of valuable information in regard to the planting, soil suited therefor, and other particulars for the cultivation of fruits, vegetables, flowers, shrubbery, &c.

Mr. Geo. Page has also published a descriptive catalogue of his valuable Agricultural Machinery and Implements, with engravings, representing the same, with the prices attached.

Mr. E. Whitman, Jr., has likewise issued a descriptive catalogue of Seeds, farming and gardening Tools, Machinery and Implements, manufactured and sold by him, illustrated with cuts of every implement, the uses thereof and prices, to which is added a variety of information in regard to fertilizers, selection and cultivation of fruit trees, vegetables, &c &c.

Messrs. R. Sinclair, Jr. & Co. have also in press and will publish in a few days a new and enlarged edition of their catalogue, containing a great variety of useful information to the farmer and planter, embracing a description of the Machinery, Implements and Tools, manufactured and sold at their establishment, with cuts illustrative thereof, together with hints on the cultivation of fruit and ornamental trees, garden vegetables and flowers, modes and times of planting and a catalogue of trees, plants, &c., raised in the nursery connected with their establishment—being the most full and complete ever published by them—with the prices of every article sold attached.

These catalogues will be sent gratis to any one desirous of obtaining them, and the valuable information imparted therein should make it desirable for every farmer, planter, and horticulturist to obtain copies thereof. They show as great a variety, if not more extensive, than is to be found in any city of the Union, and we repeat what we have said on a former occasion, that those wishing to supply themselves with agricultural machinery, trees or seeds, need go no farther than our goodly city to obtain the best, and we have no doubt that the prices and terms will be found to equal those offered elsewhere.

COMPOSITION FOR CARRIAGE AND CART WHEELS.

—Melt 2 lbs. of lard, and while warm, add thereto 2 lbs. of powdered black lead, and 2 lbs. of wheat flour, taking care to thoroughly mix and incorporate the three ingredients well together, when you will have one of the best compositions ever applied to the wheels of carriages of pleasure or burthen. It possesses the quality of reducing the friction fully as well, if not better than tar and grease, and is not subject to become indurated under the effect of frost, while it is infinitely more cleanly than the tar mixture, and does not require to be repeated so frequently.

HOLLOW HORN.—There is a trite, but nevertheless true saying, that prevention is better than cure, and therefore, we anticipate the occurrence of this disease among our patron's cattle, by stating, that it may be prevented, by pouring a tea-spoonful of spirits of turpentine in the ear or depression on the back of the head, just behind the horns, once in every two or three weeks between this and the last of March. This is a simple and inexpensive preventive, and if tried, as it should be, will prove an effective remedy.

GLEDHAW, SHORT HORN DURHAM BULL.

[The portraits of the following described animals, owned by Col. H. CAPRON, of Md., will be found in the January No. for 1848, of the *American Farmer*.]

GLEDHAW, red, calved 1st December, 1840, bred by Joseph Barton, Manhattan, U. S. America, got by Yorkshireman, (5700,) dam Truelove, bred by W. S. Gill, by Sir John, (2628) g dam Sweetheart, bred by W. F. Payley, of Gledhow, by Trustee, (1055) g g dam (2d Strawberry, bred by Mr. Charge,) by Newton (1271) g g g dam (Strawberry) by a son of Comet, 155, g g g g dam by a son of Major, 397; g g g g dam by the Gray Bull, 872, g g g g g dam by Favorite, 252, g g g g g dam by Bartle, 777, (See Herd Book, vol. 4, page 197.) Yorkshireman, sire of Gledhow, calved 28th August, 1838, bred by Thomas Bates, Kirkleavington, the property of Joseph Cope, West Chester, Chester County, Pennsylvania, U. S. America, got by Short Tail, 2621, dam by Belvidere, 1706, g dam by Belvidere, 1706, g. g. dam (Tulip, bred by Major Rudd,) by Lancaster, 360, g g g dam Ruby, by Petrach, 488, g g g g dam by Major, 397, g g g g g dam Stranger, by Chapman's Son of Punch, 122, g g g g g dam Old Raney, by Dickinson's Grandson of Punch, 213, g g g g g dam by Checks, 132, g g g g g g dam (Lockhusen Sall) by John Coates' Bull, 148.—(See Coates' Herd Book, vol. 4th, page 559. Gledhow received the first premium at the Prince George's Agricultural Show, in October last, as the best Durham Bull over 3 years old. See Report published in the January No. of the *American Farmer*.)

DEVON BULL ECLIPSE.

Eclipse was imported by Mr. George Patterson, in 1841, from the stock of T. Bloomfield, and is as well bred as any animal in the Kingdom of Great Britain.

Eclipse received the First Premium as the best Devon Bull over 3 years old, at the Prince George's Agricultural Society's Show, in October last.

DURHAM COW ELLEN KIRBY.

Bred by Mr. J. Gowan, Pennsylvania.

ELLEN KIRBY's dam, Imported Miss Kirby, (sent to the United States by Mr. Whitaker, in 1839,) by Don Juan, 1923, by Navigator, 1260, dam by Perry, 1312, g dam by Ketton, g g dam by a son of Patriot, 486, g g g dam by Harry Chapman's Bull, g g g g dam by Ralph Grimston's Bull, g g g g g dam by a son of Dalton Duke, 188. **ELLEN KIRBY** received the First Premium at the Prince George's Agricultural Society's Show in October last, as the best Durham Cow. See Report.

FOR LOSS OF CUD.—An aloe tincture, made of brandy and ginger is good.

MONTGOMERY COUNTY AGRICULTURAL SOCIETY.

The Society held its regular quarterly meeting in the room of the Register of Wills, the County Court being in session; and the President of the Society, J. P. C. PETER, Esq., being absent from indisposition, GEO. W. DAWSON, one of the Vice Presidents took the Chair; and the Secretary being professionally engaged in the County Court, Dr. C. A. HARDING acted as Secretary pro tem.

The record of the proceedings of the last meeting of the Society was read.

Mr. A. B. DAVIS, Chairman of the Committee on *Rotation of Crops*, and Mr. FRANCIS C. CLOPPER, Chairman of the Committee on *Labor*, presented and read very able and interesting reports from those Committees, which were received and ordered to be entered on the records of the Society, and stand for discussion at the future meetings of the Society, in their regular order, and that they be published in the newspapers printed in the county, and in the *American Farmer*.

Mr. RICH'D J. BOWIE then, in appropriate terms, announced to the Society the death of Dr. HORACE WILLSON, one of its Vice Presidents, since its last meeting, and offered the following resolution:

Resolved, That this Society have sustained a severe loss in the recent death of Doctor HORACE WILLSON, a citizen whose prominent position and extended experience promised a prolonged career of usefulness to the community in which he resided; and this Society tenders its cordial condolence and sympathy to his bereaved family.

Which was unanimously adopted.

The Society then adjourned until the next regular quarterly meeting.

C. A. HARDING, *Sec'y pro tem*.

REPORT.

Perhaps no subject is of more importance to the husbandman, than that assigned to the Committee upon *Rotation of Crops*, who have now the honor to present the following as the result of their reflections upon this subject:

By the appointment of a committee upon *Rotation of Crops*, it is understood that the society has proposed the enquiry: What course of crops is best adapted to promote the increased fertility of the soil, and advance the interest of the farmers of Montgomery?

To answer this enquiry satisfactorily, it will be necessary to take a retrospective glance at the course of cultivation heretofore pursued, and see what has been the result of that course. From the success or failures of those who have preceded us, we may possibly gather some lights to guide our future operations.

Before proceeding farther, the committee will lay down one general principle, so obvious as to need neither proof nor illustration, by which to test the examination upon which they are about to enter, viz: That land ought to be so cultivated, as to produce a remunerating return to the farmer, and, at the same time, so that its fertility may be kept up and improved. Now, if we find that the first result has been attained, viz: a profitable return, but at the expense of the fertility of the soil, we shall hold that the system is erroneous. It is like a bank making large yearly dividends, by annually abstracting from, and consequently sinking, its capital. If, on the other hand, we find the fertility of the soil improved without making an adequate return to its owner, (a rather improbable case however,) we must contend that the

fault is with the farmer himself. He has either been injudiciously extravagant in his improvements, or he has not sought the return which his land is ready to yield him.

The observation of every practical farmer will sustain the assertion that no one crop, particularly grain crops, can long be successively cultivated upon the same piece of ground, without a sensible diminution in the annual product, and consequently, as is supposed, an exhaustion of the fertility of the soil. On the other hand, the same experience may be appealed to, to sustain the position that the fertility of land may not only be kept up, but improved by a judicious system of alternate husbandry.

To make more apparent the first position, your committee need only refer to the large tracts of common and old fields in this county, given up and forsaken, because not affording a sufficient return to defray the cost of cultivation.

From these old fields, now covered with sedges and pine, the perpetual sight of which is painful to look upon, and in some places is only relieved by galls and gullies, we know that our forefathers once reaped comparatively rich and luxuriant harvests. Now, where mirth and hospitality once reigned, dreariness, desolation and want, seem to cover the land. What has produced this mighty contrast? Why are the hospitable mansions of our ancestors, in many situations, fast crumbling into decay—the broad fields, the lawns and gardens, turned to common waste? We answer emphatically, because a proper system of *Rotation of crops* was not understood, or, if understood, not duly appreciated.

Your committee would not be understood as reflecting upon the memories of those who have gone before them; they are too sensible how large a debt of gratitude is due to them; our duty to our subject however, demands that we should advert to the practice which has brought so large a portion of our county to such apparent barrenness and desolation.—What then has been this practice? From the best sources of information within our reach, we learn that the following was the course very generally pursued. After clearing away the wood and timber, and one, two or three, and sometimes four crops of tobacco, were taken off without manure, the land was generally seeded in wheat; sometimes the poorer soils were sowed with rye, the stubble pastured, and the next spring ploughed for corn; then seeded again in wheat or rye, or perhaps in some instances, left till the next spring for oats, the stubble of which was also pastured. All the manure that could be collected from feeding, a few cattle on the south side of a rail fence, or the droppings of the horses in an open log stable, the crevices of which were not chinked, (from a conviction doubtless that a free circulation of air was essential to the health and usefulness of that noble animal,) was applied to the tobacco patch: for the thirst for profitable returns of this crop had by this time, appropriated all the better spots. With the assistance of the little manure saved, to the cultivation of this destructive weed. This system—or rather it would be an abuse of the term thus to dignify the practice—with an occasional year of rest in pasture, prevailed so long as the land was capable of producing anything—when it was turned out, galled and gullied, for cattle and sheep to browse and gather a scanty subsistence from—when other tobacco land, that had been gradually encroaching upon the primeval forest, was brought under the same severe course of culture.

After such a practice, such an abuse of the gift of

nature, is it at all surprising that Montgomerians should sometimes be taunted with the sterility of their county, and with the poverty to which they seem perpetually doomed? Tested by the principle we have first laid down, how stands the result? Has the land been improved in fertility, while it has in some instances been yielding handsome yearly returns to its owners? Or, has it not rather been brought to poverty and desolation—a desolation, however, which is not irreparable; for, unlike the perishable institutions of man, the foundations of the soil, true to their grand original design, are destined to remain.—Upon those foundations, worn and rugged though they be, it is our duty now to build. We must clear away the brambles, smooth down the gullies and cover the galls with verdure and productiveness. We design to show that this can be done.

But in recommending a system of rotations, your committee are sensible of the difficulty of the task they have undertaken; in laying down a system to suit one farm, they may not find it in all respects well adapted to another. There is in the county, much variety of soil and aspect, and great inequality in the size of farms. It is obvious that a system that will suit a farm of a hundred acres, may not be well adapted to one of a thousand, and *vice versa*.

Your committee will only then make a few suggestions, and leave their application to the circumstances and judgment of farmers themselves.

The committee first, then, recommend (except in cases of newly cleared land,) the discontinuance of the tobacco crop, which in their judgment, has been the primary cause of the impoverished condition of a large portion our county. We then recommend a more thorough cultivation, deep and repeated ploughings and harrowings, and stocking with grasses. And, first in the series, we recommend red clover, not only because of its value for hay and pasture, but more so because of its meliorating effects upon almost every kind of soil.

It may perhaps be objected by some, that they find difficulty, from the exhausted condition of their land, in getting clover to grow upon it. To such, we advise to fallow their land; and prepare it, by repeated harrowings, as carefully as though it were intended for a grain crop; and, omitting the grain crop, to sow a peck of clover seed per acre lightly harrowed in; the moment the clover-leaves show themselves, sprinkle over the land, thus prepared and seeded, half a bushel or three pecks of plaster per acre; then protect it from stock the first year—the second also, when the pasture can be spared. Your committee would not be understood as omitting the manure pile, and the necessity of spreading it out to aid the farmer in stocking his land with clover; on the contrary, we urge him to collect and spread all he can obtain—a very slight sprinkle will enable him to set his clover on his worst galls and gullies; but we are now treating of land so impoverished by injudicious cropping, that very little manure can be spared from the garden and potatoe patch.

Having succeeded in setting our poor worn out lands with clover, we are now prepared to commence our system of Rotation. And here we beg leave to remark, that system is essential to success. System and punctuality are the very essence of success in every enterprise of life. It is just as necessary to the Farmer as to the Merchant or the Manufacturer—to the Divine, the Lawyer or the Doctor; and whoever heard of either succeeding, who left his business to chance, or the whim and caprice of the moment? We then recommend that the clover lay

shall first be given to the corn crop, that great and inestimable gift of a munificent Providence to American husbandry. This crop has been justly styled the meat and bread of America, for with it we can have both of the most healthful and nutritious character. Before planting the corn, however, we would advise when practicable, a dressing of lime to be spread upon the land. Let no one object to this recommendation, because he is not able to lime his field of twenty, thirty or fifty acres; if he cannot do this let him begin with five, ten or fifteen, and by industry and economy he will soon find his ability to double the quantity.

The second year of this course the land should be cultivated in oats, or so much thereof as has been limed, or can be manured for the wheat crop, which we advise shall immediately succeed the oat crop; and the following spring, the third in the series, the land again laid down in clover and orchard grass, or clover and timothy, with a dressing of plaster or what is better, plaster and ashes, as first recommended in setting in clover; the land then to remain in grass two or three years, as may suit the convenience of the farmer, or size and divisions of his farm.

The advantages of this system of cropping are—first that you have inverted sod to feed and nourish the corn crop, and to protect the land from washing rains, to which it is most exposed during its cultivation: secondly instead of the land remaining idle and unproductive, as it would be in open fallow, you have a remunerating and thorough cleanser of the soil in the oat crop; and, thirdly, with comparatively a slight dressing of manure, (the quantity of which may be greatly augmented and improved for this crop, by being composted with rich earth, the scrapings of road sides and the banks of ditches,) you have the land admirably prepared for the wheat crop, and for clover and other grasses, which is so much benefitted by the manure given to the wheat crop, as to return a hay and seed crop, the first year, quite equal in value, in favorable seasons, to the wheat crop, and a rich and luxuriant pasture the second or fifth year in the series of rotation; when the land is again ready, with increased productiveness, for a recommencement of the same course of rotation.

It is true the system here recommended contemplates manure; and, without manure, your committee would not be responsible for the success of any course of cropping into which it did not largely enter. Agricultural history does not furnish an instance where a high state of improvement has been attained without a liberal use of manure. But on the contrary, it gives many remarkable instances of extraordinary improvement, of even poor lands, by a due attention to manure—Flanders and the county of Norfolk, in England, presenting striking and illustrious examples. The soil, unlike man, is not ungrateful for favors conferred. For kind culture and a liberal supply of food, a most grateful and abundant return will always be made. Manure, then, in some of its forms, must be considered the basis of the system of rotation your committee recommend; and here they beg leave to remark, that they have observed, and are sensible themselves, of practising too much carelessness in collecting and applying this invaluable commodity. They hazard nothing in the assertion, that there is not a farmer in the county who may not, by a little extra labor and attention, double his annual supply; but, as the *modus operandi* is assigned to another and much abler committee, we forbear to trespass upon a subject at present in much more skilful hands.

The rotation we have been recommending, is

susceptible however of various modifications, to suit the wants and conveniences of farmers, and the degree of fertility of the farm. For instance, in the first year a small portion of the corn field may be appropriated to roots, such as potatoes, parsnips, carrots, or sugar beets, and beans, a crop entirely too much neglected in this county; or a portion of the oat crop in the second year, could be made to give way to those crops—or, if the resources of the farm, and the ability of the farmer, be inadequate to supply the amount of manure necessary in this course of cropping then the oat crop had better be altogether omitted, and the land cultivated in open fallow for wheat; or, if preferred, clover with plaster and ashes may be sowed with the oat crop, (a less certain way, however, of setting clover,) and the next, or third year in the series, the clover, when ripe, well turned under for wheat. The ripe clover, thus turned under, would, in all probability, reset the land with clover without further seeding when it would remain two years in meadow or pasture. This last practice would require six years before the land ought again to be cultivated in corn, and consequently six fields or divisions of the farm.

We have promised to give some evidence to sustain our second position, viz: that worn-out lands can be restored to fertility, and made highly productive; and, as example is justly considered entitled to more weight than precept, the committee deem themselves fortunate in not being compelled to go beyond the limits of our own county for instances so striking and remarkable, as to dispel all doubt from the minds of the most incredulous.

Your committee will then make no apology for first (as entitled to most honorable distinction) introducing the venerable and respected name of ROSEA BROOKE. This gentleman, we are informed, became possessed of an estate that had been subjected to the process we have attempted to describe in an early part of this report. His quick perception and far-seeing judgment, admonished him that, to continue the same mode of farming, would bring ruin upon himself, and entail poverty upon his posterity. But he was too shrewd a calculator to continue a business with such results staring him full in the face. Accordingly, his first step in his system of improvement was to abandon the tobacco crop—being aware that although it may have made many rich fathers, there were too many instances, in this county, of its having left an impoverished landed estate as an inheritance to their sons. His next step was to stock his farm with grasses, and carefully to husband and judiciously spread out all the manure he could raise in his barnyard and collect about his homestead. To those members of the society who have seen his neat and highly cultivated fields, or have partaken of his hospitable board, or what to many will be remembered with still more delight, who have listened to the sallies of wit and humor as they playfully flowed from his well-stored mind, under the shape of his umbrageous trees—your committee need not tell the result: to others it may be interesting to learn that, instead of having an impoverished estate to leave as an inheritance to his children, Mr. Brooke, in green old age, with them, enjoys the fruits of an estate, the value of which he has perhaps quadrupled.

Stimulated by this example, and the march of improvement which characterizes the age we live in, a number of our farmers have abandoned the old practice, and adopted the modern system of improvement. Among those who have more recently signalized themselves in this respect, and who it may al-

most emphatically be said, have changed "the barren waste to fertile fields," the committee will only mention the names of BENJ. HALLOWELL, SAM'L T. STONESTREET, and F. P. BLAIR, Esqs. With such examples to encourage us, we think no one need despair. In addition to the sources of improvement heretofore within our reach, we may now draw upon the shores of the Pacific, and the rich pasture fields of Virginia, which are annually sending us large contributions in the shape of guano and bone-dust, to aid our efforts in the work of improvement. Their application, thus far, has been highly satisfactory, and we deem their characters as great fertilizers, now well established.

With, therefore, the means as we have shown of augmenting our own sources of fertility, and the auxiliary aids that are now brought within our reach, shall we longer suffer the reproach of poverty and sterility which has so long been applied to our county?—or shall we put forth the energy and skill which is alone wanting to obliterate it forever?

We have thus discharged the duty assigned us. In its performance, we have felt it our duty, to advert to what we believe to be the cause of the impoverished condition of so large a portion of our county. We have, as our appointment seemed to demand, ventured to suggest, a course of Rotation for its improvement—and finally, by the examples we have given, we think we have shown that our worst lands, can be restored to fertility and productiveness.

Should our efforts be successful in arousing the dormant energies of a single farmer in the county, we shall feel abundantly compensated for the labor we have bestowed. We remember to have heard a homely remark by one of the most successful farmers in this State, to the truth of which we entirely subscribe, and which, we deem not out of place here to introduce, viz: "*that there was more in the man, than there is in the land.*"

The committee concludes this report, by recommending the adoption of the following resolution:

Resolved, That a systematic rotation of crops, with a liberal supply of manure, is essential to a high and perfect state of agriculture.

All of which is respectfully submitted.

A. B. DAVIS, Chairman.

GUANO.—In an old work, the "*Universal English Dispensatory*," published in London, in 1747, loaned us by an esteemed friend, we find the following notice of the use of guano, by which it will be seen that it was in high estimation a century ago. In speaking of the cultivation of Pepper, a kind called Chilpelague, the writer says:

"This is the species so much esteemed by the Spaniards and generally used by them in preparing chocolate; there is also another species of this pepper which only grows about Peru, where it is called Agy; a large quantity of this species is cultivated in a small plain about six leagues in circumference, near the village of Arica, on the coast of Peru, and in the valleys of Lama, Tacna, and Cuzumba; though these four places are of a small extent and there is a great demand for this kind of pepper, yet they furnish every year as much as draws more than six hundred thousand Piasters, which would appear incredible if the excrements of the birds, called Guano, with which the Peruvians dung their land, did not render it so fertile that the grains sown in it, and especially the Agy, yield four to five hundred for one."

EXPERIMENT ON A DISEASED PEACH TREE.

BY T. A. S., SYRACUSE, N. Y.

In the fall of 1844, Judge G. L. of this village procured a few peach trees from New-Jersey, which were planted in his garden the spring following. During the seasons of 1845, '46, they grew well, and all appeared equally healthy. Last spring they came finely into bloom and leaf; but one of the number, soon after the fruit had set, manifested derangement in some of its vital functions; the leaves becoming yellow and drooping—presenting an appearance more indicative of the autumnal than the vernal season. The change was somewhat sudden; and the malady, whatever it was, appeared to be making rapid strides. Nurserymen, amateurs and others, were called in to examine the tree, some of whom pronounced it to be affected with the "yellows," and recommended its extirpation lest the other trees might imbibe the contagion.

At this stage, the tree was passed over to my hands for "experiment." The report of M. BRONNIER on the action of the salts of iron on vegetation, (contained in your journal for April last,) suggested the use of that metal in some form. As the readiest means, resort was had to the oxide; a small furnace near by furnishing this material in abundance from the filings of the finishing room, which having been thrown out and exposed to the action of the atmosphere, had become a mass of *red rust*.

The earth was removed from the tree (about the trunk) down to the main roots, over a circle about a foot in diameter, and a peck measure or more of this oxidized mass placed around the tree and immediately in contact with the roots thus exposed. A pail of water was then poured over the material, and the earth replaced.

About the 4th or 5th day after the application, a perceptible change had taken place along the main arteries of the leaves, which had assumed a deep, healthful green, the partial and distinct change giving to the foliage a singularly variegated appearance. From this period the alteration was marked and rapid, till at the end of ten or twelve days the tree had apparently quite assumed its natural or normal condition. On examination, however, it was found that the young fruit had become injured, and had remained nearly stationary in size, presenting much the appearance of the *east* fruit of the peach, of a lifeless texture and drab colour. The tree, however, retained its fruit during the season, though its growth was scarcely perceptible from week to week until after the middle of September, when the *stoning* process had probably become partially perfected; after which period the fruit swelled off somewhat rapidly until the latter part of October, when it was checked by the frost; some few specimens became slightly coloured, but all immature and worthless. The tree, however, had made a fair growth of wood for the season, appears well stocked with fruit buds, and retained its foliage some weeks longer and in a fresher condition, then other peach trees planted in the same grounds.

I send you the foregoing facts, to be made such use of as you may think proper. Perhaps they may suggest a remedy for the "yellows" in the peach tree—a malady with which I am unacquainted, unless this case has afforded an instance of it. Your large experience and more extensive knowledge on such subjects may be able to ascertain the nature of the disease, and the effect or action of the remedy applied.

—Horticulturist. Yours, &c., T. A. S.
Syracuse, N. Y., Dec. 6, 1847.

[We are obliged to T. A. S. for the foregoing account of his experiment. It is interesting, as corroborating M. Gris' views on the beneficial action of iron on the health of diseased foliage. We have ourselves repeated this season some of M. Gris' experiments with sulphate of iron (copperas) with excellent results; and there is little doubt that almost all diseases of the foliage (including the "yellows" in the peach,) if taken at an early stage, may be cured by its use—following the proportions laid down by that writer in our last volume, p. 471.]

Our correspondent administered a pretty large dose of oxide of iron to his patient; though from its being kept in a small circle near the trunk it does not appear to have produced, as yet, any bad effects. The fruit was probably injured past recovery by the diseased state of the sap before he made his application of iron. We shall be glad to have any accounts from T. A. S. or others of further experiments.—Ed.]—Horticulturist.

ERRATA.—In the January number,—in the Reports to the Talbot county societies, page 199, line 17 from the bottom of first column, instead of this place he continued to follow, read—"this plan he continued to follow." Page 201, for Wm. B. Wills, read Wm. B. Willis.

In the communication on the subject of cutting timber, in the same No. of the Farmer, the signature should have been "Isaac Brower," instead of Brown. In the first line, for seven years experience, read "seventeen"—instead of bay wheels, and bay pits, substitute the word "cog."

CORN MEAL CAKES.—Excellent breakfast cakes can be made in the following manner: Mix two quarts of corn meal, at night, with water, and a little yeast and salt, and make it just thin enough to stir easy. In the morning stir in three or four eggs, a little saleratus and a cup of sour milk, so as to leave it thin enough to pour out of a pan; bake three-quarters of an hour, and you will have light, rich honey-comb cakes—and with a good cup of coffee and sweet butter at breakfast, one finds with Hamlet, "increase of appetite to grow with what it feeds on."—*Genesee Farmer*.

The following is extracted from an address of Wm. H. FARQUHAR, Esq. to the Agricultural Society of Montgomery Co., Md. We have on file, an entire copy of the address, which we intend transferring entire to our columns at as early a period as our arrangements and engagements will permit.

"Not far from the localities just alluded to there lies a piece of ground, stretching out from the road, in wide if not beautiful prospective, which, as long as I can remember, has borne the descriptive title of "Poverty Plains." Into this field, during the present season, the owner introduced an old acquaintance, though for many long years a stranger—namely, the plough. But previous to breaking up the ground, he sowed 300 lbs. of guano upon one acre of it, upon the sod, I suppose I must call it, and turned it under some 5 or 6 inches deep. The corn upon that acre stood through the season, like an island—like the island of Iehaboe, perhaps, before it was hauled away and shipped to foreign parts. The lowest estimate I have heard put upon the yield of that acre, is 30 bushels."

The owner of the above described field presents the following statement to the Editor of the Rock;

ville Journal, it being to his mind the most satisfactory evidence of the great efficiency of guano he has ever tried :

A lot of six acres are laid off and afterwards subdivided into four smaller lots.

On Lot No. 1, containing 1 acre, there had been applied, about two years ago, 50 bushels of quick lime, on what ought to have been sod. Last spring I sowed on this acre 300 lbs. of African guano, at a cost of \$1.70 per hundred, delivered on the ground, and plowed it under, 5 or 6 inches deep, as soon after sowing as possible.—The yield was 71 bushels of corn in the ear.

Lot No. 2 contained 1½ acres. This also had 50 bushels of lime per acre, and a small handful of poudrette in the hill.—Yield, 35 bushels of corn, or about 2½ barrels per acre.

Lot No. 3—1 acre. Sowed on this 300 lbs. of guano and treated as in Lot No. 1. Yield, 62 bushels of corn, or over 6 barrels.

Lot No. 4—2½ acres. This was decidedly the best ground—gave it a small handful of poudrette to the hill, at a cost of \$2.62 per acre. Yield, 76 bushels of corn, or about 3 barrels per acre.

Left four rows across this lot without any poudrette. Yield, a few scattering nubbins.

From these experiments, instituted to determine the cheapest method of bringing up this field of 32 acres, I think there can be but one opinion—i. e. that guano sown at the rate of three or four hundred pounds per acre, and plowed under, thereby preventing the escape of ammonia, and furnishing food for the corn roots to feed upon, is the most judicious method of application.

THE OWNER.

A RULE FOR MEASURING CORN.

It may sometimes be useful to know how to estimate the amount of corn in grain contained in a crib or storehouse, while it is still in the ear, and we therefore give a statement relating to this subject which appeared in an agricultural paper at the South.

"The following rule for ascertaining the quantity of shelled corn in a house of any dimensions is by William Murray, Esq., of South Carolina, and was read before the St. John's, Colleton Agricultural Society and communicated by them for publication in the Southern Agriculturist:

"Rule.—Having previously levelled the corn in the house, so that it will be of equal depth throughout, ascertain the length, breadth, and depth of the bulk; multiply these dimensions together, and their product by 4, then cut off one figure, from the right of this product. This will give you so many bushels and a decimal of a bushel of shelled corn. If it be required to find the quantity of eared corn, substitute 8 for 4, and cut off one figure as before.

Example: In a bulk of corn in the ear 12 feet long, 11 feet broad, and 6 feet deep, there will be 316 bushels and 8-10ths of a bushel of shelled corn, or 633 bushels and 6-10ths of ear corn; as 12 X 11 = 132 X 6 = 792 X 4 = 316 8; or 12 X 11 = 132 X 6 = 792 X 8 = 633-6.

The decimal 4 is used when the object is to find the quantity of shelled corn, because that decimal is one-half the decimal 8, and it requires two bushels of ear corn to make one bushel of shelled corn. In using these rules, half a bushel may be added for every hundred; that amount of ears results from the substitution of the decimals. The term 'barrel of corn,' so much used by southerners, means five bushels of shelled corn."—Gleaner.

MANURES.—A: the New York Institute the following observations were made by Mr. Underhill in reference to manures.

"The idea has generally prevailed for centuries past, that the strength of manures, the particles which serve to support vegetation, have a downward tendency into the earth, are washed down by the rains, and finally sink below the reach of vegetation and die out and are lost. Hence farmers imagine that they must try to keep their manures near the surface of the soil, that loose sandy soils will not hold manures, and that a subsoil of clay is therefore of great importance.

"Dr. Underhill's theory is entirely the reverse of all this. He contends that the nourishing particles of manures ascend out of the earth, that either by the action of the sun's rays on the earth's surface, or by the operations of nature in some way, their constant tendency is upward, and what is not arrested on its way for the support of vegetation escapes into the atmosphere and is lost in that way. He has been making experiments and collecting facts for several years, and believes them sufficient to establish his theory beyond a question. One of his experiments, for example, was something like this. He took a piece of barren soil, and put manure into it two feet below the surface. The first year its influence seemed to rise about half way to the surface, and was manifestly felt by the roots that descended far enough to meet it. The second year the influence of the manure reached the surface of the ground and produced a vigorous and flourishing growth of vegetation.

"He mentioned several other facts in confirmation of the same idea, but said he did not wish to go into the subject fully at this time, as the meeting was thin and as it was proposed to have an adjourned meeting on Tuesday next, when he would present a written report, which as chairman of a committee of the Farmer's Club, appointed for the investigation of this subject, he had been preparing."

FLORICULTURAL.

Prepared for the American Farmer by S. Feast, Floriculturist, Baltimore.

Camellias, will be in full bloom now; give plenty of water, and keep the leaves clean from dust—as soon as they are out of flower repot them, and be careful to drain the pots well to carry off the water.

Azalias flowering, will require plenty of water and air; if shaded from the mid-day sun it will keep them longer in bloom.

Roses that were repotted in November for forcing, may now be brought forward; water freely and give air every fine day.

Geraniums will be required to be watered freely, and potted in larger pots if not done before.

Orange and Lemon trees to come early in bloom may be freely watered.

All the species of Acheminas, should be potted this month.

Dahlia roots may now be potted for early flowering.

Cactuses.—Keep dry until the latter part of the month—then give plenty of water.

Verbenas may now be potted in larger pots, and put near the glass.

Annual Flower Seeds, for early use, may now be sown, such as ten week stock Petunias, Mignonette, sensitive plant, Phlox Drommundii, Pansies, and many other tender flowering plants, may now be sown in pots for transplanting.

Plants in frames, will require plenty of fresh air, whenever the weather permits.

AGRICULTURAL WORKS.

History and Description of Domestic animals, by Allen, bound 75 c., in paper covers, 50 c.

Cole's Veterinarian, 50.

American Herd Book, by Allen, 83

Downing's Cot. Residences, 92

Chaptal's Agricultural Chemistry, 81 c.

Wiggins' Far's Instructor, 1.50

Skinner's Clater and Youatt's Cattle Doctor, 50

Youatt's Treatise on Cattle, 85

McMahon's Am. Gardener, 2.50

A Treatise on the Vine, by Prince, 1.50

Sinclair on Grasses (Lond.), 10

The Planter's Guide, a practical essay on giving immediate effect to wood by the removal of large trees and underwood, by Sir H. Stewart, 1st Am. edition, 83

Sir Jno. Sinclair's Code of Agriculture, (Lond.) 87

do. do. (Am. edition) 82

Powryth on Fruit Trees, 67 c.

Hinds' Groom's Oracle, 1.00

Barnum's Amer. Farrier, 1.00

Lawrence on the Horse, 50

Clarke on the Mulberry Tree and Silk Worm, 50

Whitmarsh on do. 50

Journal of a Naturalist, 1.00

Naufrail's Introduction to Botany, 2.00

Elements of Agriculture, Geology, and Chemistry, by Prof. Johnston, 75

Elements of Geology, by Lee, 50

Lindly's Theory of Horticulture, 2.75

Fessenden's Complete Farmer, 87

Do. new Amer. Gardener, 87

Floy's Guide to the Orchard, For Sale by

Samuel Sands, No. 2 Jarvis' Building, North-st., Office of the AMERICAN FARMER.

Subscriptions received as above for the American Farmer, \$1 per annum—Also for the Albany Cultivator, American Agriculturist, Farmers' Cabinet—each \$1. Also Hovey's Magazine of Horticulture, and Downing's Horticulturist, each \$2 per vol. Skinner's Farmers' Library, \$5, &c. &c.

The subscriber also keeps on hand a general assortment of Miscellaneous and School Books, together with the new and cheap publications, Magazines, Newspapers, Periodicals, &c.

The "Simon pure," and invincible WILEY PLOW still in the field—A. G. MOTT, at No. 38 ENSOR STREET, near the Bel-Air Market—Manufacturer and Vender of Implements of Husbandry, viz. Plows, Harrows, Cultivators, Grain-Cradles, Wheat-Fans, Corn-Shellers, Straw-Cutters, Endless chain Horse Powers, Threshing Machines, &c. &c.—through this medium, would appreciate the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE WILEY PLOW (right and left hand) composed of the real "Simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about two cents per acre, for blacksmith's bill.—If you are for bargains, call, or send your orders, for he guarantees his implements good as the best, and cheap as the cheapest, for cash, and delivered in any part of the city free of charge.

LIME—LIME—The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 95c. per bushel, in hds., or at \$1 per bbl. E. J. COOPER, City Block, Baltimore, July 1

BOMMER'S METHOD FOR MAKING MANURE—The Subscriber has been appointed by Mr. Bommer, his agent for the Southern States, and will dispose of the Books, with the right to use them, for any sized farm, at \$5 each. Address (post paid) ml SAM'L SANDS, office of "A. Farmer."

THE subscriber will continue to Manufacture his Reaping Machines in Baltimore; Swan street, near Marsh Market.

PRICES:

Large machine with six feet cutter and forward wheels and zinc platform - - - - - \$175 00

Medium size, with 5½ feet cutter—broad rim iron wheel suited for soft ground, with the gearing placed out of the reach of mud—the crank to run entirely in brass with brass pinion on it; and zinc platform, and forward wheels, - - - - - \$150 00

The same machine, without forward wheels, - - - - - \$130 00

Small machine, in its usual form, without forward wheels, with 5 foot cutter—crank running in brass, with brass pinion and zinc platform, - - - - - \$120 00

The above machines will be furnished with one extra bevil wheel and two iron pinions, one extra rake, six cutters, and a superior screw wrench, a cold chisel and punch and fifty rivets to replace cutters.

The small machine, with 5 feet cutters, made as usual, without extra, with usual quantity of brass work, \$100 00

Farmers who design to procure this machine, should make application to the subscriber early in the fall to make sure of getting a machine, as the supply at harvest time has never been equal to the demand. A much larger demand is anticipated for the next harvest, from the abundant proof from all parts of the country, that wherever this machine makes its appearance, other machines, for the same purpose are generally abandoned. This fact which I am prepared to substantiate will be the best certificate which can be placed before the farmer.

O. B. HUSSEY.

P. S.—A Patent has been recently granted for the late improvements—persons wishing to purchase the right, will please address

O. B. HUSSEY, Baltimore, Md.

sep 1.

P. S.—An improvement has been made by Gen'l T. Tilghman, of Maryland, by which the grain is laid on one side—it is done by adding 4 or 5 feet to the width of the present platform, and placing two rakers on the machine instead of one—they sit back to back—the first raker pushes the sheaf back on to the newly added portion of the platform, where it is received by the second raker and drawn to one side by a common hay rake. This improvement will be found convenient by those who are short-handed, and exactly suited to those who do not bind the wheat at all, or wish it to be awble before binding. Gen'l T. has used this improvement three years, greatly to his own satisfaction, and thinks it a great advantage in any point of view. Any farmer who has a saw and axe, and one of my machines, can try the experiment himself. This improvement will be added to new machines and durably constructed at an extra expense of ten dollars, if ordered.

O. HUSSEY.

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their MILL-WORK; also to the farmers and planters for their liberal support in the Machine line, and would respectfully inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of MILLS: Overshot, Pitch Back, Breast, Undershot, Reacting, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry-log and Mill Screws; also manufactures Hoisting Machines, Hoisting Cranes, Pile Drivers Turning Lathes and Steam Engines; and any kind of Machine, Model or Mill-work built to order. Any kind of Castings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well.

JAS. MURRAY.

Millwright, York near Light St. Baltimore.

Also for sale, Jas. Murray's patent separating Shellers, which shells and puts the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the sheller a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French burr Millstones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low.

HALIFAX, N. C., August 25th, '47.

Mr. JAS. MURRAY,—Dear Sir:—This is to certify that I have used your fans during the last spring and summer, and feel no hesitation in saying they are the best by far, I ever saw, I fanned with one fan, one thousand barrels of corn in one day—and in one day fanned one thousand bushels of wheat, as it came from the thrasher. They will do as much as any two I ever had, in the same time. Yours, &c.

W. B. HATHAWAY.

OVERSEER WANTED.—A man who can come well recommended, will hear of a good situation by applying at this office—making with small family not objected to; wages liberal.

METEOROLOGICAL TABLE,

From the 27th of December, to the 28th of January.
Kept at Schellman Hall, near Sykesville, Carroll county.

Taken at 6 o'clock, a. m.; 2 o'clock, noon, and at 6 o'clock.

	Wind.	Temperature	Remarks.
27	W W W	8 27 19	Clear Snow
28	W SE SW	21 38 36	do
29	W S S	18 45 40	do
30	S S S	35 50 50	Fog Clear Rain
31	SE SE SE	40 57 50	Fog
1	SE S S	53 59 53	Cloudy Rain 1-8 in.
2	NW NW NW	44 44 39	Cloudy Clear
3	W SW SW	38 49 39	Clear
4	W W SW	38 54 43	do
5	NW E SW	38 38 37	Cloudy Clear
6	W W W	38 47 39	Clear
7	NW W W	19 35 25	do
8	W SW SW	25 39 36	do Rain
9	NW NW NW	36 34 25	do
10	NW NW NW	10 30 15	do
11	NW NW NW	6 23 17	do
12	W W W	19 34 30	Cloudy Clear
13	W S S	39 39 38	Clear
14	SE S S	35 45 43	Cloudy Clear
15	SE SE SE	35 45 35	Rain 1 inch
16	W W SW	39 43 39	Clear Rain 1-8 inch
17	W SW S	33 53 48	Clear
18	SW W W	34 48 35	Clear
19	W W W	17 35 23	Clear
20	W W W	19 43 34	Clear
21	W W W	27 50 43	Clear
22	W SW S	34 45 40	Clear
23	S S S	35 53 43	Clear
24	SW SW SW	37 49 35	Clear
25	S SE SE	35 43 43	Cloudy
26	SE SE NE	36 46 40	Fog Rain 1 in.
27	S W W	45 53 50	Fog Clear Shower
28	W	38	Clear

BALTIMORE MARKET, JANUARY 29.

The last steamer from England brings advices that the monetary affairs of Great Britain were improving, although failures continued to take place to a considerable extent; the effect, however, of her advices, has not been favorable for our breadstuffs here, as prices have receded somewhat since our last. We quote, for Howard street Flour \$5.75 offered, with sales; the supply fair. City mills, stock light and demand equal to the supply, sales at \$6.12. Rye Flour \$4.50. Corn meal \$3. Wheat, very little white arriving, which is quoted at 1.35a140c.; family flour do. 145a148c.; prime red 130a135; ord. to good 120a 130. Corn, 58a60c. for white, and 60a61 for yellow, with small sales. Rye, not much in demand, sales at 73a75c. Oats, 43a45c. Beans, sales at 100a112c. per bush. Flaxseed is selling at 130a 135c. Cloverseed, sales considerable at \$4.12a4.37. Timothy, \$2.1a3, very little in first hands. Bacon, not much doing yet, a few sales of Baltimore cured at 6.7a7c.; for sides, assorted, 6a6.1c.; for shoulders and hams at 8a10c. Hogs, live, sales at \$5.37a5.62 per 100 lbs. Pork, mess \$12.50 prime 10.50. Beef Cattle, 882 head offered on Monday, 300 of which were sold to city butchers at \$2a3.50 per 100 lbs. on the hoof, equal to \$4a6.75 nett, and averaging about \$2.75 gross—480 head were driven to other markets, and the remainder left over unsold—sales since at the above rates. Beef, sales of No. 1 \$9.50a10, mess \$12. Lard, sales at 7a7.1 in kegs; barrels are held at 7a7.1. Butter, Western is scarce, sales at 12a13; Glades 14a16, with considerable sales for shipping. Herring and Shad, prices nominal. Mackerel, No. 1 \$8.50a9; No. 2 \$6.25a6.50; No. 3 \$5.25a5.50. Apples, 1.50a2.87 per bbl. Coffee, Rio 7a7.1, heavy. Cotton, supply fair and holders firm; sales of N. O. range from 8a9c. Feathers 34, demand good. Wood, hickory \$5; oak 3.75a4.12; pine 2.75. Stone Coal \$6a6.25 per ton. Hemp, 5.1 for dew rot, 9a9.1 for

water rot; Manila 10c.; Russia scarce and nominal at 240a250 per ton. Molasses, N. O. 26a27; Cuba 19a23. Tar, 2.12a2.18. Rosin, 87a1.75 per barrel sales of Spirits of Turpentine 40a42. Oils, dull. Plaster, 2.87a3.18 per ton. Potatoes, in demand, with sales at \$1a1.25 per bush, for merchants. Rice, 3.62, 3.87 per 100 lbs. Sugar, N. O. 4.79a5; P. Rico 4.66. Wool, nothing doing and but little in market. Whiskey, 24a25c. in hhds. and bbis., some asking more. Tobacco, nothing doing of any consequence, all that is arriving, suitable for the French market, is bought up at fair prices to fill the contracts just made with the French government. We quote Maryland \$3 for inferior and common; 3a7.50 for good common; 5a \$9 for good; 6a20 for fine and better qualities. Ohio, com. 2.25a2.50; good com. 2.75a3; reds 4a10; fine wrappery red 13a20; spangled 4a10; yellow 6a12. The inspections for the last 4 weeks, are—Maryland 70 hhds.; Ohio 162; Ky. 17; Va. 4—Total 253 hhds.

NOTICE.

CLAIRMONT NURSERY,
Near Baltimore, Md.



We again take pleasure in notifying our various customers and the public, that the time has nearly arrived for transplanting Trees, &c., and consider our stock of fruit trees superior to what they have ever been. We are both in quality and in quantity, as we have had an opportunity of testing their correctness from our standard Trees which are extensively bearing.—We deem it unnecessary to enumerate the various kinds of fruit and ornamental Trees, Shrubby, Roses, Green House plants, Flower roots, &c. &c., suffice it to say our Nursery and Seed Garden occupies about 100 acres of the Farm, and our determination is to give satisfaction if possible, both in price and quality—printed Catalogues, giving our prices, will be sent gratis; where large quantities are wanted considerable discount will be made. Letters addressed to R. Sinclair, Jr. & Co., Light St., Baltimore, or the subscribers, Balto. Md. will meet with prompt attention.

Persons wishing to act as Agents will please let us hear from them.

Nov 1

WM. COARSE,

Successor to Sinclair & Cores.

TO FARMERS AND PLANTERS.

A. D. CHILDS' PATENT HORSE-POWER.

PRICE \$110—or without the wood work of the sweeps \$100.

The subscriber would invite his patrons and the public generally to call and examine this Horse Power for themselves, and also his Threshing Machines, as he has several on hand of superior workmanship. He has also on hand a quantity of Ploughs of all sizes and various patterns and well made, with a great variety of other Implements, such as Wheat Fans, Harrows; Swingle-trees, Corn Shellers, Corn and Cob Crushers, &c. &c., which he will sell very low, as he wishes to close out his old stock, which he has been several years reducing.

Cylindrical Straw Cutters and Plough Castings on hand at Wholesale & Retail as heretofore. J. S. EASTMAN,

In the rear of his old store, No. 180 PRATT STREET, near HANOVER-st. Entrance by alley through the Front Store.

Sep 1

10,000 Copies in 4 Months!

COLE'S AMERICAN VETERINARIAN.

OF Diseases of Domestic Animals, showing the Causes, Symptoms, and Remedies, and rules for restoring and preserving health by good management, with full directions for Training and Breeding, by S. W. COLE, Esq.

This is emphatically a Book for every Farmer, and no Farmer's Library is complete without it. The demand for TEN THOUSAND COPIES in the short space of four months, speaks volumes in favor of the work. The Farmer has in this neat and compact vol. a complete ENCYCLOPEDIA, in which he may find the whole subject of the Treatment of Domestic Animals, fairly discussed, and rules and remedies fully and clearly prescribed.

WANTED, 50 active, intelligent, and enterprising AGENTS, to sell this work, two in each State of the Union. A small capital of from \$25 to \$50, will be necessary for each Agent. Address, post paid, the Publishers.

JOHN P. JEWETT & CO.

93 Cornhill, Booksellers Row, Boston.

For Sale by CUSHING & BROTHER, Baltimore.

Printing in every variety executed here.

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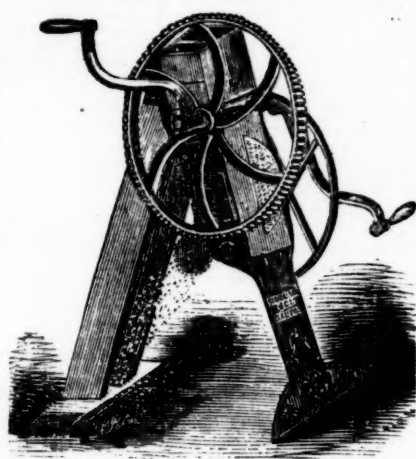
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CORN AND COB CRUSHERS—CORN SHELLERS, STRAW CUTTERS, &c.



WE are manufacturing and offer for sale the following valuable agricultural machinery, viz.

Our Eagle Corn shellers, made with single and double plates, price,	\$15 to 18
Virgin cylindrical corn sheller,	\$30
Box and vertical corn shellers,	\$10 to 16
Goldsbrough horse power corn sheller,	\$40
Smith's Columbiad do do	\$55
Pettigrew's N. Carolina do do	\$80
Cylindrical Straw Cutters, with and without patent corn stalk Lacerators attached—prices as follows, viz:	
Inch. 9 in. 11 in. 12 1/2 in. 14 in.	
Lacerators, 0 \$6 \$8 \$10	
Price, \$25 \$36 \$45 \$55	

(\$)-Cutting machines without Lacerators are sold at 25, 26, 30, 37 and \$45 each. Farmers having our cylindrical straw cutters can have the Lacerators attached at the above rates, with a small additional price for time, &c. consumed in adding the attachment. This addition is valuable and should be adopted by every farmer who wishes to economize.

Corn and Cob Crushers, an excellent and durable machine, price \$30. Also on hand as usual a large and general assortment of Thrashing machines, Flows, Fanning and Corn Mills, Drill machines, Tools, Garden and Field Seeds, &c.

jl R. SINCLAIR, JR. & CO., 62 Light-st.

PLOUGH'S! PLOUGH'S!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,

THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. T. Beard, Th. Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Iglehart, A. Sellman, R. Sellman, W. Hopkins, J. Kent, Geo. Wells, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, of Anne Arundel county; G. W. Weems, J. T. Barber, R. B. Chew, W. Boswell, Y. Howes, of Calvert co. Md. (\$)-Agent of Evans Davis, Baltimore co. for sale of the Woodcock Plow, Pennsylvania Grain Cradles. CHAS. H. DRURY,

Gillingham alley, entrance from Howard st. near Pratt, and store, Hollingsworth st. corner Pratt

mal
AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—GEORGE PAGE, Machinist & Manufacturer, Baltimore st. West of Schröder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, use or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from \$85 to \$200, and each simple, strong and powerful. His Horse Power & Thrashing Machine, is prepared to supply at the low price of \$125 complete; the Thrashing Machines without the horse power, according to size, at \$30, 40, 65 and \$75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, \$12.

PREMIUM PLOUGHS AND FARMING IMPLEMENTS.



THE Agricultural Exhibitions at Easton, Talbot county, Md. 19th and 11th Nov., was the most extensive exhibition ever had South of the State of New York. Among the ploughs exhibited was the Davis; Beach; Wiley; Woodcock; Chenoweth; Winan; Drury's; Sinclair's Maryland self-sharpening; and a variety of others, making more than 60 ploughs on the ground for exhibition, and every variety of Straw Cutter; Wheat Thrasher and Separator; Fodder Cutter; Corn and Cob Crushers; Gang Plough; Ox Yoke; Grain Cradle and Cultivator, sold in this city; and after two days close investigation by the committee the highest premiums were awarded on the above articles as follows:

To E. Whitman, jr. for the best 2 horse Plough, Prouty & Mears, No. 34.	
do do do	Straw Cutter, Ruggles, Nourse & Mason.
do do do	Fodder Cutter, Royer's Im.
do do do	Grain Cradle, Grant's.
do do do	Wheat Thrasher and Separator, Whitman's patent
do do do	Gang Plough, do pattern
do do do	Ox Yoke, Whitman's Yancey pattern
do do do	Cultivator, Whitman's do
At same Fair last year the highest premium was awarded to E. Whitman, jr., the best One Horse Plough, Prouty & Mears.	
do do	Corn Sheller, Whitman's
do do	Wheat Fan, Grant's
do do	Straw Cutter, Hovey's
do do	Harrows.

None of which were offered for premium this year.

At the Montgomery County Fair this season, we also received \$20 for the best display of implements, and the first premium on two horse Plough; Corn Sheller and Wheat Fan. All the above and a greater variety of new and improved implements, for sale by the subscriber than is found in any establishment in the United States.

E. WHITMAN, Jr.

jl N. E. corner of Light and Pratt-sts., Baltimore

"Spade labour, the perfection of good husbandry."

PULVERIZATION.



DECOMPOSITION.

THE "PREMIUM PLOUGH"—In Prouty & Mears' No. 5 1-2, "confessedly the best PLOUGH known in this country for beauty of work and pulverizing the soil," we have combined the most perfect swing as well as wheel Plough, connected also with the principles of self-sharpening and centre-draught, which with the facility of turning it into a Tandem 2, 4, or 3 horses abreast Plough in a minute of time, renders it the **NE PLUS ULTRA** of perfection. During the past season it received the first premium for the **BEST PLOUGH**, at Philadelphia; a first, second and third premium at New Castle county, Del.; the Imperial Medal of Russia, of massive gold, value \$300; and at Prince George's society, Md. the highest testimony of approbation, in not permitting it to compete, having already received the first premium as "the **BEST PLOUGH** for general purposes." Their one-horse Plough No. 2 1-2, is strongly recommended for light soils and horticultural purposes, being built after the same model, self sharpening, and carrying a sod furrow 10 in wide with great ease and precision.

In addition to the above, the Premium list of the Prouty & Mears' Centre Draught Plough for the present season, is as follows, viz:

New Castle Co. Del., 6 premiums out of 8, including the first two premiums.

Concord, Mass., 5 premiums out of 8, furrows 10 in. deep.

Philadelphia, 1st premium for the best plough, of the trial.

Tamilton, Mass. 5 premiums, including the three first premiums.

Newtown, Bucks Co. Pa. "the best Plough for pulverizing the soil and burying the stubble."

For sale at No. 55 Light st. Baltimore, Mr. EZRA WHITMAN being appointed sole Agent for sales in Baltimore and vicinity.

100 WHITMAN'S PREMIUM CORN SHELLERS, for sale, price \$10, \$16, and \$18.

E. WHITMAN, JR.

jl N. E. Corner of Light & Pratt-sts.—Baltimore.

THE WESTERN CONTINENT,

A SOUTHERN FAMILY NEWSPAPER OF THE LARGEST SIZE—Published in BALTIMORE, Md.

EDITED BY WM. T. THOMPSON, ASSISTED BY KATE HAREDELL AND MAJ. JOS. JONES, OF PINEVILLE.

THE Western Continent is now in its third volume, with a rapidly growing subscription list, and in all the essentials of a popular family journal ranks with the first weeklies in the country. The literary character of the Continent is elevated—its moral tone unexceptionable, and its contents are so diversified as to render the paper interesting and instructive to all classes of readers—strictly neutral in politics and religion—it gives the political news of the day, together with a digested summary of the foreign and domestic news of interest.

Subscription price \$2 per year, or three copies for \$5. All orders should be addressed, post paid, to
Feb. 1. W. T. THOMPSON, Editor and Publisher.

FLOWER SEEDS.



The subscriber has received a very great variety of FLOWER SEEDS, raised in this State the past season, which he will sell wholesale or retail on pleasing terms. They are put up in papers, at 61-4c. each. Also, a general assortment of GARDEN VEGETABLE SEEDS, as usual, embracing every variety, which he offers for sale at his Agricultural Emporium, No. 2 JARVIS BUILDING, North street, Baltimore, (Office of the AMERICAN FARMER.)
Feb. 1. SAMUEL SANDS.

BOMMER'S MANURE METHOD.

FEW modern improvements in Agriculture have excited the intense interest which has been experienced in relation to Bommer's method of making Manure.

Every judicious farmer knows that a plentiful supply of the best manure, obtained at the least possible expense, must be a desirable object. Hundreds of testimonials from the best authorities demonstrate, beyond successful controversy, that no one need remain destitute of that supply of manure which his wants require.

Read the following certificates from practical men:

Pleasant Plains, 12th Dec., 1847.

SIR:—Yours of 9th inst. has been received, and I most cheerfully will give you any information, respecting the Bommer manure, that I have acquired during an acquaintance with its effects for four years. In the first place I think very highly of the manure. I had a heap put up of eighty cart loads, of dry unbroken corn stalks. I watered it too much to have it rot as fast as would have done, and it remained over till the next spring, when I manured my corn in the hill, with most decided advantage, making upward of ten barrels to the acre. I suppose the land would have produced ordinarily 5 or 6 barrels per acre. I think all manure should be taken through this process; it would be twice as strong. I shall put up a large heap this winter, and should be pleased to show you, personally, my fixtures.
I am respectfully yours,

JOHN RIBOUT, of H.

Pleasant Plains, 19th Jan., 1848.

Since I wrote the foregoing letter on my experience in the Bommer manure, and which I did not suppose would be made public, the agent for the sale of the method has called on me to ascertain the expense of making the manure. I will state, that, in my opinion, after you are fixed (which will not cost ten dollars) a heap of 500 cart loads can be put up with very little, or no more trouble and cost than any compost heap of manure of the same size. I again repeat, that I think the Bommer method a most excellent and advantageous one, and think every farmer should adopt the plan.

Near Annapolis, Md.

JOHN RIBOUT, of H.

Scotland, near Annapolis, 19th Jan., 1848.

Having been called on by Mr. Comstock, agent for the method of making the Bommer manure, I take pleasure in stating that I fully concur in the foregoing statements, as regards its effects, as made by my neighbor, Mr. John Ribout, of H. I have used the method for the last four years, and with very great advantage, and would recommend it as an easy and cheap method of converting the rough materials of the farm into an active manure. It effectually destroys any seeds of injurious weeds that may be in it. The pile I have used was about 70 feet long, 30 feet wide, and 7 feet high when first put up. The feed yard, if practicable, should always be so arranged that the wash of the yard will run into a pit, constructed in the first instance for making the lye. P. MEZICK.

The subscriber is Agent for the States of Maryland and Delaware and the District of Columbia, and intends to canvass the whole territory, personally, or by sub-agents.

The price of the method is reduced to \$5 00.

G. D. COMSTOCK, Baltimore, Md.

WANTED, a few good AGENTS, who can come well recommended or with a capital of \$25, to travel on the Eastern Shore. Address as above.
Feb. 1

Mount Airy Agricultural Institute.

THE Subscriber having rented the Mt. Airy Farm, the late residence of James Gowen, Esq., with all its extensive and eligible appliances, for the purpose of a Farm School, will remove his school, now the Dutchess Agricultural Institute, of Dutchess Co., N. Y., to the above place, where he will open for the Summer term on the first Thursday of April next, after which it will be known as the Mt. Airy Agricultural Institute. The Winter session will commence the first Thursday of October. This farm, which is located on the Germantown road, 8 miles from Philadelphia, having been so long and generally known as the Model Farm of the States, the site being proverbially beautiful and healthful, a minute description is deemed superfluous—suffice it to say, that it presents every desirable facility for the establishment and maintenance of an experimental, Practical and Scientific Agricultural School.

The course of instruction will be such as to afford the students every facility for acquiring a thorough knowledge of Scientific and Practical Agriculture, with the use of the best modern farm machinery and implements, together with a select farmer's library, including numerous Agricultural periodicals. Instruction is also given in all the collateral branches requisite to ensure the great desideratum which it was the object of the founder and principal to supply, by an education commensurate with the exalted destinies of a landed interest.

Chemistry and the other Natural Sciences in their application to the pursuits of life receive particular attention, lectures, with full experimental illustrations, being connected with each course. The Zoonic course will commence with the Horse, a perfect skeleton being provided for illustration.

The best facilities are also offered, that those who desire, may here acquire a commercial education, to the end that they may lay the foundation in youth of a future life that shall be agreeable, healthful and useful.

Fee for the year \$200, payable semi-annually in advance. This sum includes Tuition, Board, ordinary Washing and Lights and Fuel. An extra charge of \$12 per annum will be made for pupils not finding their own bedding and toilet furniture. The modern languages \$10 each extra per term, as also Drawing.

This Institution is under the patronage of the American Agricultural Association, the Farmers' Club of the American Institute, and the Dutchess Agricultural Society. Address

JOHN WILKINSON, } Principal Dutchess Ag. In-
After 20th March, Mount Airy } stitute, Poughkeepsie, N. Y.
Agr. Institute, Philadelphia, Pa.

REFERENCES:

Zebedee Cook, Esq., N. Y.	Chs. Bartlett, A. M., Prest. Col- legiate School,
Thos. McElrath, Esq., "	Wm. A. Davies, Esq., President Farmers' and Manufacturers' Bank, Poughkeepsie,
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Rev. F. A. Farley, Brooklyn,	" Ab'm Folkenhus, Hephew,
Samuel Allen, Esq., N. Y.,	James Gowen, Esq., Phila., Pa.,
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Aibany, N. Y.,	Geo. W. Dobbin, Esq. Baltimore, Md.
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